

**FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.**

[PRICE 6d.

Parties sending instructions must state prices and time allowed, in order to facilitate business.—August 26, 1854.



TO GOLD AND SILVER MINING COMPANIES, AND OTHERS.

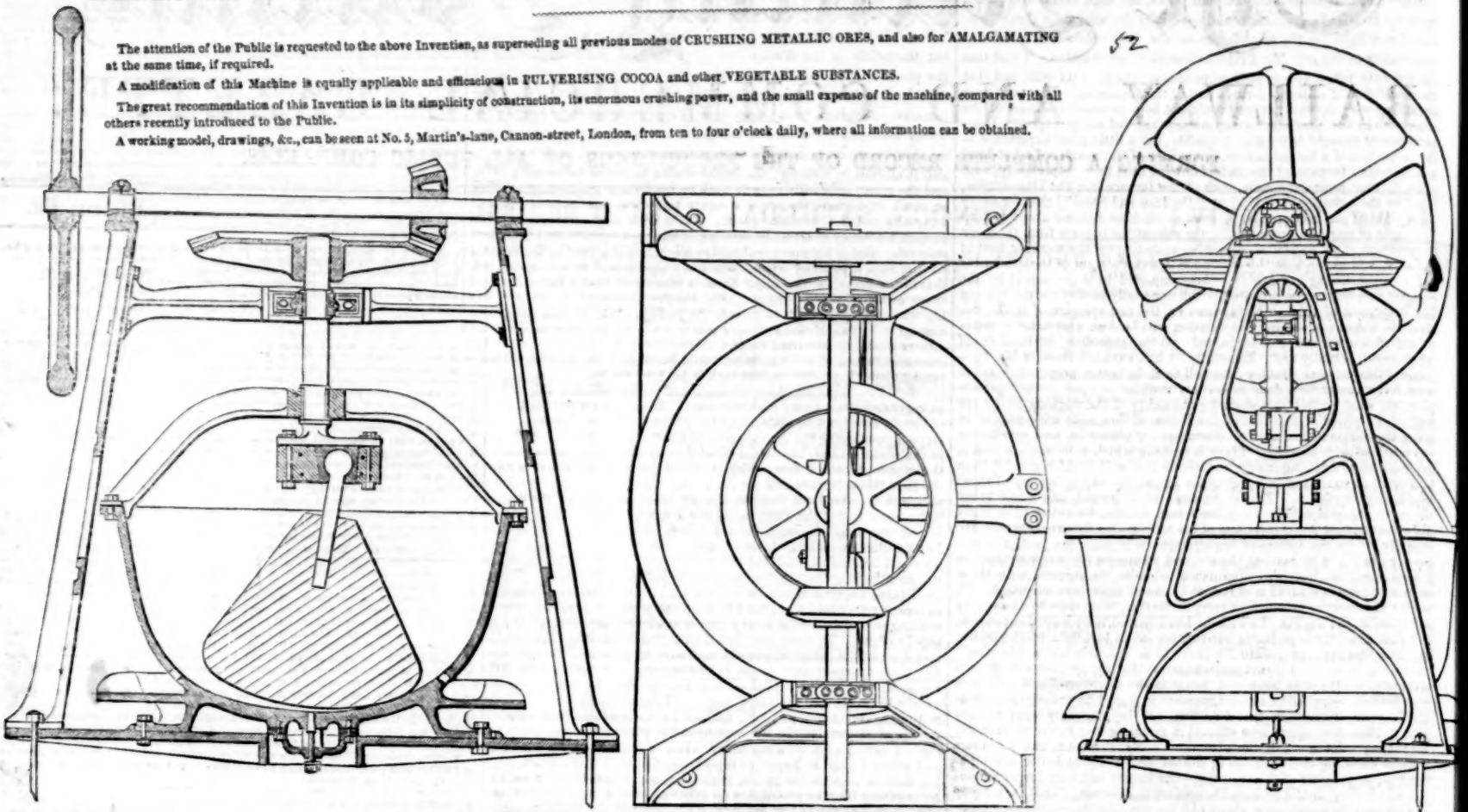
## HENRY MOSS AND CO.'S PATENT PULVERISING, AMALGAMATING, AND WASHING MACHINE.

The attention of the Public is requested to the above Invention, as superseding all previous modes of CRUSHING METALLIC ORES, and also for AMALGAMATING at the same time, if required.

A modification of this Machine is equally applicable and efficacious in PULVERISING COCOA and other VEGETABLE SUBSTANCES.

The great recommendation of this Invention is in its simplicity of construction, its enormous crushing power, and the small expense of the machine, compared with all others recently introduced to the Public.

A working model, drawings, &c., can be seen at No. 5, Martin's-lane, Cannon-street, London, from ten to four o'clock daily, where all information can be obtained.



## NORTHAMPTONSHIRE GREAT CENTRAL COAL MINING COMPANY.

Capital £21,500, in 21,500 parts, or shares, of £1 each, paid up, and no further liability.

To be conducted on the "COST-BOOK PRINCIPLE."

Held under lease, of which 22 years remain unexpired, from the 29th day of September, 1854.

## COMMITTEE OF MANAGEMENT.

Mr. JOSEPH ADNITT, merchant, Bridge-street, Northampton.  
 Mr. WILLIAM BUTCHER, Esq., Cotton End, Hardingstone, Northampton.  
 Mr. WILLIAM DUNKLEY, farmer and auctioneer, &c., Kingsthorpe.  
 Mr. JOHN DULEY, ironfounder, St. John's-street, Northampton.  
 Mr. SPENCER JONES, shoe manufacturer, Drapery, Northampton.  
 Mr. JOHN LILLYMAN, brush manufacturer, Gold-street, Northampton.  
 Mr. ROBERT MILLS, clothier, Bridge-street, Northampton.  
 Mr. PORTER, Esq., St. Andrew's-terrace, one of the aldermen of Northampton.  
 Mr. WILLIAM ROE, gentleman, Gold-street, Northampton.

(With power to add to their number.)

BANKERS—The Northamptonshire Banking Company, Northampton.

SECRETARIES—Mr. N. W. Freeman, Market-square, Northampton; Mr. John Jones, Union-street, Northampton.

SOLICITORS—Messrs. Hulme and Foyster, Manchester.

OFFICES—MARKET SQUARE, NORTHAMPTON.

## PROSPECTUS.

The period having arrived when a combination of fortuitous and most advantageous circumstances, both of a local and general nature, have greatly enhanced the importance so long attached to the discovery of coal in the more southern portions of the kingdom, it has been resolved to form a powerful company for the purpose of resuming operations at the Kingsthorpe shaft, which several years ago, though then presenting such high promise of a successful issue, were obliged to be suspended for the want of adequate capital to carry on the works.

The property on which this mine is situated, consists of 50 acres,\* lying in the parish of Kingsthorpe, near the turnpike-road leading to the populous town of Northampton, about two miles distant. The works to which it is now desired to invite the particular attention of the general public, were commenced (for the discovery of coal) on the northern verge of the middle coal strata, and were continued to a depth of 160 fathoms. In the course of this sinking, a number of facts of the most encouraging character were developed, and which have far exceeded the most sanguine expectations of persons conversant with the geology of the neighbourhood.

The formations of the lower coal, lias and red marl, which geologically intervene between the site of these works and the great coal formation, were found to be very much thinner than their general estimated thickness, and at the period of the suspension of the works there was the strongest evidence for believing that the miners had actually penetrated some distance into the coal series, especially as a conglomerate rock, 6 feet thick (exactly similar to the one existing in the same geological situation, and resting on the coal measures in Staffordshire and Leicestershire), was found at the base of the red marl formation, and in the lower beds of which a strong brine spring was discovered.

It is almost unnecessary to observe, that independently of the highly encouraging prospects, now so palpably exhibited of the discovery of coal in this part of England, it is a consideration of the greatest consequence to landed proprietors, and to the local interests generally, and when viewed in connection with the recent important discoveries of inexhaustible iron ore beds (thousands of tons of which are weekly sent out of the county to be smelted) in this immediate neighbourhood, the Great Central Coal Mining Project, may be truly said to assume an aspect of great national importance. In order to carry out this pregnant enterprise effectually, it has been deemed advisable to raise a sufficient capital in the outset to erect a powerful steam-engine and to meet all contingencies which may possibly arise in the progress of a work of this character; and it is confidently expected—from the various and very inviting circumstances shown, to warrant so strong a belief in a successful issue of the undertaking, to say nothing of the present high price of coal—that the shares will be rapidly taken up, and that the operations will again shortly be in a state of full and effectual progression.

The projectors propose to raise a capital of £21,500, in twenty-one thousand five hundred parts or shares of £1 each, the sum provided being much larger than it is considered will be requisite to meet every contingency.

It has been a fundamental principle in the rules of the company, that the mine shall never be in debt, and that every account shall be paid monthly, and that no shareholder shall be liable for more than £1 per share.

Applications for prospectuses and for shares may be addressed to Mr. N. W. FREEMAN, sharebroker, Market-square, Northampton; Mr. THOMAS LEWIS, sharebroker, St. George's Chambers, High-street, Birmingham; Mr. LANE, mining agent, 33, Threadneedle-street, London; Mr. EARL LANGSTON, stock and sharebroker, Queen's Chambers, Manchester; Mr. JOHN HARRISON, mining and sharebroker, Liverpool; Messrs. CHOKER and Co., brokers, Plymouth; Mr. W. H. BRYCE, broker, Bridge-street, Bath; to the secretaries, the solicitors, or to any gentleman of the committee.

## FORM OF APPLICATION FOR SHARES.

To the Committee of Management of the Northamptonshire Great Central Coal Mining Company.

I request you will allot me shares in the above company, of £1 each, and I hereby engage to take the same, or any less number that may be allotted me, and I undertake to pay the bankers of the company £1 on each allotted share when required to do so.

Reference ..... Name in full.....  
 Date ..... Address.....  
 Occupation.....

The following report from JOSEPH HOLDSWORTH, Esq., M.G.S.F., an eminent practical geologist, has been received:—

TO THE COMMITTEE OF MANAGEMENT OF THE GREAT CENTRAL COAL MINING COMPANY.  
 Edinburgh, July, 1854.—GENTLEMEN: It affords me a great gratification to be informed that it has been determined to form a company forthwith, for the purpose of resuming operations for the discovery of coal at Kingsthorpe, and which, at a most encouraging juncture, were obliged to be suspended, from the great influx of saline water then met with, and the inadequacy of the means at command to conquer it, and persevere in the works with due effect. Since you have been pleased to favour me with an appeal for any further information I may be enabled to afford you on this momentous subject at the present juncture, I certainly should be very happy to respond to it, in a way that might tend more fully to elucidate any of the facts and circumstances necessarily affecting the grand object of your research. But the discoveries already made by the previous operations reduce the question at issue to so simple a character, as entirely to preclude the necessity of entering into any special or general detail of such geological principles, as in the outset had a peculiar reference to the undertaking you propose resuming: the great consideration now being, the presence of accessible coal-seams beneath the last penetrated strata, as they have, geognostically, been proved to exist in the neighbour-

ing counties of Leicestershire and Warwickshire, where they are known to immerse under the new red sandstone to the southward, and are in all probability at least co-extensive with that formation. Several years have now elapsed since the above intimated period, and as in the course of that protracted interval I have had innumerable opportunities of practically studying, *con amore*, the great subject of my earlier predictions, not only throughout Great Britain and Ireland but on the Continent, where amidst the deep recesses of its four great mountain ranges, most instructive examples of stratification, in every detail phase, constantly presented themselves to my observation. It is, I must affirm, extremely satisfactory to be able now to declare that I am the more than ever confirmed in the conviction of immense tracts of unexplored coal beds existing, at accessible depths, beneath the secondary formations of central and more southern England. And as a site for a trial on a sufficiently large and effective scale for their discovery, a reference to a geological map of the kingdom, and the line of bearing of the great northern and central coal fields, the topographical eligibility of the works in question will be sufficiently apparent. If the Kingsthorpe Works were now about to be commenced from the very surface of the middle coal ranges, I should deem it expedient to go into a variety of evidence, &c., respecting the formations geologically intervening between the above and the true coal formation, in order to examine into the practicability of (pretty readily) penetrating through them, and which you know certain theoretical geologists asserted, in the outset, to be physically impossible! But such deductions are now rendered quite unnecessary, by the actual knowledge obtained in the sinkings of the true character and aspect here of the respective formations above alluded to, and which prove to be in the aggregate but 160 fms. in thickness. And as regards this matter, you will recollect that whilst the miners were penetrating through the series of stone bands, characteristic of the lower lias, the near approach to and discovery of the new red sandstone formation, was not only predicted by me, as it soon after actually occurred, but that the fact of the sinkers having penetrated into it was subsequently confirmed by Professor Buckland, who about that time also visited the scene of operations, and according to the section, as now submitted to me, of the measures already developed, it would appear that the future operations will be commenced in the vicinity of, if not actually in, the great coal formation suit of strata. Be that, however, as it may, this brief reference to the main facts, &c., bearing on the character of the Kingsthorpe undertaking, abundantly exemplifies the very important and encouraging nature of the project, and to which is imparted a vast additional stimulus, by the discovery of such valuable tracts of ironstone in the neighbourhood at Northampton, and where lime (as a flux for smelting the ore) is also most abundant. In my former disquisitions on this subject, it will also be seen that I have particularly alluded to the discovery of the fine saline water in the shaft at Kingsthorpe, which, as exemplified, may readily be turned to very lucrative and extensively beneficial account. Indeed, looking at all the important circumstances immediately or collaterally connected with this enterprise, it is impossible to attach too much consequence to it, and should it ultimately result in the success so justly anticipated, it will not only most amply remunerate all peculiarly connected therewith, but it will open up a new and inexhaustible field of mineral treasures, inducing numberless similar undertakings in the unexplored secondary districts, and involving the employment of capital and labour, to an extent unparalleled in the annals of British mining.

JOSEPH HOLDSWORTH.

\* This quantity may be extended to 300 acres, or more, if required by the company.

## WHEEL FRANCO.—AT A GENERAL MEETING OF THE ADVENTURERS, held at the mine on Wednesday, the 16th day of August, 1854.

WILLIAM EALES, Esq., in the chair.

The minutes of the general meeting held on the 8th February last, and of the subsequent committee meetings, and the notice convening this meeting, were read.

The reports of the committee and Capt. Lean were also read, whereupon the following resolutions were unanimously passed:—

That these reports, together with the accounts, be received, and printed and circulated with the proceedings of this meeting.

That the committee be requested to continue their attention to the resolution of the last general meeting, as to the sale of Furze Hill sett.

That the 24 forfeited shares be merged, and the shares of the company be reduced from 764 to 740.

That a call of £1 per share be made, and required to be paid to the bankers, Messrs. Harris and Co., Naval Bank, Plymouth, on or before the 16th September next.

That the remuneration for the services of the secretary and his clerk be fixed at £100 per annum, to commence from his appointment by the committee in April last.

That the best thanks of the adventurers be given to the committee, secretary, and Capt. Lean, for their great attention to the affairs of the company, and for their clear reports submitted to the meeting.

WILLIAM EALES, Chairman.

Mr. Eales having quitted the chair, it was unanimously resolved,—That the best thanks of the meeting be presented to him for his kindness in presiding, and for his conduct in the chair.

CHRIS. V. BRIDGMAN, Sec.

## COMMITTEE'S REPORT.

Your committee have the pleasure of reporting that although the period has not yet arrived for the announcement of the realisation of profits, the prospect of which has induced some of the oldest adventurers not only to continue but to increase their shares, yet we feel that the present state of the affairs and prospects afford subject of congratulation to those adventurers who have determined on developing the lode at the depth of about 160 fathoms, towards which the shaft is sinking satisfactorily, and we refer to the report of Capt. Lean, respecting this and the other works at the mine. We have strictly investigated all the causes of the serious difficulties which so long impeded these works, and have the satisfaction of reporting our entire confidence in the skill, attention, and fidelity of Capt. Lean, who has now entirely overcome those difficulties, including the very serious one of the great influx of water from the eastern part of the sett. We have the pleasure of submitting to you an analysis, showing the whole of the receipts and expenditure from the foot of the accounts passed at the general meeting, held on the 16th November, 1852, and the present state of your finances, and although the result shows that there has been a loss of £13,224—viz., £16 per share,—by the present company, yet their perseverance offers every prospect of ultimate remuneration. We have considerably simplified the accounts, which will in future be kept at the counting-house, and the means of doing this, together with other great advantages, are now afforded by the additions which have been made to the house, for the residence of the agent on the mine. It is gratifying to find the balance due to the bankers and agent is now reduced to £151 13s. 10d., and we have the pleasure also to report that there is now not a single shareholder in arrears. To arrive at this result, we have been obliged to declare forfeited 24 shares, at a loss to the company of £118. We submit the share list with these forfeitures marked thereon, and request the directions of the meeting, whether these shares shall be merged, and so lessen the number of shares from 764 to 740, or whether they shall be sold for the benefit of the company. We have referred to the rules and regulations for the guidance of the miners and others employed at the Devon Great Consols, and others mines in the district, and have prepared a code, under which this mine will in future be worked, for your confirmation. At a meeting of the committee on the 17th April last, they requested Mr. Bridgman, one of its members, to act as chairman and secretary, and also to provide the necessary assistance, and take upon himself the responsibility of the proper keeping the accounts upon the plan we have since approved, at a salary to be settled at the general meeting, to which he assented, and has since performed the duties undertaken. In addition to the analysis of the cash, we also submit a statement of asset,

and liabilities, made from particular valuations. In conclusion, we beg to express our decided opinion, that the present state and prospects of this concern fully justify the determination of the large shareholders to give it further trial; and that the contemplated may be vigorously carried out, we recommend a call of £1 per share be paid on the usual notice. We have not deemed it expedient to proceed to the east of the eastern part of our extensive sett, pursuant to the resolution passed at the general meeting, in consequence of the depression of mining adventures, but as a proper opportunity offers, we will not be unmindful of this resolution.

## AGENT'S REPORT.

Wheat Franco Mine, Aug. 15, 1854.—GENTLEMEN: I have the pleasure to report that the engine-shaft is sunk 5 fms. 4 ft. below the 86 fm. level; the ground has been very favourable for sinking, and still continues so, it being of late composed of fluor-spar, mundie, and occasionally stones or ore. I expect the men will have completed their bargain 12 fms., or to the 98 fm. level, in two months from this time; should the ground continue favourable, I would recommend the sinking to a 100 fm. level, at which point we should not have far to drive to intersect the lode. The ground in the 86 fm. level cross-cut south is improved; we have about 18 fms. left to drive to the lode, which I expect will be done in four months, by the six men employed in this level. The winze in the bottom of the 74 fm. level, west of shaft sunk 2 fms., the lode being large, composed of fluor-spar and ore throughout, a promising lode; the lode here underlies but very little. I hope to get this winze by the time the lode is cut in the level below. The 74 fm. level has been cut west of shaft, about 30 fathoms; the lode for the last 10 fms. driving has very much improved in character, it being composed principally of peach, prinn, white iron ore. In the present end we have just got through a sparry cross-course, and not yet found the lode on the west side of it, but think it is here south, and that we are nearly approaching it. The stopes in the back of the 74 fathom level are large, but not rich. The lode in the 74 fm. level is much more productive than the levels above at this point. I expect when the winze is communicated with the 74 fm. level, that we shall be able to increase our returns; soon after this I expect the winze will be intersected at the 96 or 100 fm. level, when if found productive we shall be in a position to considerably increase our returns. The ground as far as seen below 74 fm. level is very much improved, it being much softer for exploring than the levels above, which is a good indication. The general character of the lode is considerably improved, and we expect to sample on the 25th inst. about 100 tons, have succeeded in damming up the water in the eastern part of the mine, having but very little water coming from that direction, and have also put in a pump at the 86 fm. level, which, with all the machinery and pitwork, is in good order. The engine has been relieved of a considerable portion of its load, which will be to work in the bottom of the shaft just as well as in any other part of the mine, having but seldom any lets or hindrances. I have let the drawing of the sett from the mine to Gawton Quay, on the Tamar, at 6s. per ton, including Quay fee; I hope now we shall have a fair competition for our ore, which I believe has existed at the Loppwell Quays.

JOHN LEAN.

## Analysis of Accounts and General Balance-sheet, from the Account submitted to the General Meeting, held on the 16th November, 1852.

Dr.		
1852. Balance due to bankers, Nov. 10	£238	15 2
Balance due to Capt. Lean, Nov. 10	2	17 10
Three months' cost to end of December	1182	12 2
1853. Twelve months' cost to end of December	3625	3 5
1854. Six months' cost to end of June	2242	2 0
Expenses of London and country committees, &c.	77	11 4
Lord's dues, water rent, and damages to land	118	4 2
Bankers' discount, interest, &c.	83	11 2
Arrears of calls on shares forfeited	118	0 0
Cr.		
1852. Arrears of calls due, Nov. 10	£53	2 3
1851. June. Cash per calls on shares received	3820	0 0
Cash for ore sold, and carriage of same	3357	16 0
Sundry receipts	1	5 2
Balance due to bankers	145	6 9
Balance due to Capt. Lean	6	7 1

Machinery and materials, underground and at surface, £1944 10 0

to end of June, 1854, as per stock-book..... 35 3 4

Goods in stock, as per book..... 62 8 0

Debts for materials sold..... £2196 13 4

LIABILITIES. £123 2 1

Balance due to bankers..... 145 6 9

Balance due to Capt. Lean..... 6 7 1

Balance of assets over liabilities..... 1871 5 3

Balance of assets over liabilities (exclusive of the value of the Furze Hill sett)..... £1671 5s. 3d.

## TO MINING COMPANIES, AND ALL CONNECTED WITH STEAM-POWER.—PLANS, SPECIFICATIONS, WITH ESTIMATES OF THE KINDS OF CORNISH MACHINERY, comprised of the most approved modern descriptions and economical principle, may be SEEN at the offices of the Engineers and General Contractors, Cannon-street Chambers, Cannon-st.

## THE "BANKERS' CIRCULAR"—This publication, which has been established nearly 25 years, and which is circulated amongst the noble Members of Parliament, bankers, and the higher class of merchants in England and foreign countries, has been PERMANENTLY ENLARGED to the investigation of questions connected with banking, finance, mining, agriculture, commerce, and navigation; and also to the publication of a great variety of commercial treaties between different countries, and other public documents. The influence of the recent varieties of gold upon fixed securities, as well as upon the commercial credit and coinage of this country, will be fully investigated in its pages.

Published by Subscription only, at Three Guinea per annum, payable half-yearly in advance. Money orders to be made payable to HENRY AYRES.

Members of Parliament and gentlemen requiring statistical information upon commerce, finance, and all other subjects, will receive attention by making application to Mr. H. AYRES, at the office, 32, Lombard-street, to whom all advertisements should be forwarded.

## THE CHOLERA!

PREVENTED BY THE DESTRUCTION OF ALL NOXIOUS EFFLUVIA.

CREW'S DISINFECTING FLUID (Recommended by the College of Physicians), the CHEAPEST AND STRONGEST CHLORIDE OF SODA.

Quarts 2s., Pints 1s., Half-pints 6d.—Sold by all chemists, druggists, and shop agents, and at Commercial Wharf, Mile End, London.

Crew's Disinfecting Fluid is a cheap, powerful, and pure preparation.—See Circular.

Agents—Messrs. DREW, HETWARD, and BARRELL, Bath-lane, Cannon-street, London.



## Original Correspondence.

## COMBUSTION, STEAM-ENGINES, &amp;c.

Sir,—The late controversy in your pages, the high encomiums passed upon the treatise by its author, and especially the allegation that it contained new lights on the manufacture of iron, have induced me at the first opportunity to dip into Mr. Pridoux's work on combustion. I find that the contents take a sphere still more extended beyond its title, and that the ventilation of collieries forms a part of the discussion. That caution in advancing very decided notions would not be a prominent feature of the composition, the previous correspondence had led me to expect. Independence of thought is a valuable quality, but a little more experience,—the inspection of a hot-air tuiere, comparison of the nozzles of a hot-blast and cold-blast furnace, of the cinders flowing from them respectively, with a few further practical details, both of the furnace and the blast-engine, aided by the reflection (see Mushet "On Iron and Steel") that for every ton weight of pig-iron proceeding from a cold-blast furnace about 18 tons by weight of nitrogen are raised by the coke at the tuyeres from the mean temperature of 60° to 800° or upwards, according to the working heat of the blast, whereas in a hot-blast furnace this vast weight of incombustible and non-consuming gas has that heat imparted to it previously by the cheapest fuel that can be procured,—will materially modify the peremptory instructiveness of this author's views on the manufacture of iron. So, also, his notions on colliery ventilation will be less abstractedly generalised after a few visits underground, and the inspection, for instance, of what goes on actually. Especially let him examine those of Mr. Benjamin Gibbons, near Dudley; he will then be better prepared to know what has actually been done in colliery ventilation upon correct principles, and what perfect provisions for the safety of the working collier are neglected; whilst committees of the House of Commons are occupied in going the fashionable round of eleemosynary education, and overlaying one mischief with another. There is nothing which more saves a useless expenditure of time, ingenuity, and labour over well-trodden ground, than to acquire an exact and comprehensive knowledge of the labours of those who have preceded us. This is the more to be desired, and would prove the more valuable in Mr. Pridoux's case, because he evinces the right disposition to test the correctness of his conceptions by experiment. He candidly relates the failure of his attempts to increase the heat of reverberatory furnaces by heating the air, and expresses his surprise that, on the contrary, the heat was diminished, whereas the surprise with those more adequately prepared is only that he should have been surprised. To correct his error he proposes to carry it further, to restore to the air, by compression, the oxygen of which he has deprived it by heated expansion, and thus convert the puddling air-furnace into a puddling blast-furnace. Whether this may not eventually prove to be "double toil and trouble" remains to be seen. I do not mean to assert that the processes of the iron manufacture cannot be improved, better modes discovered, and blast, and even hot-blast, applied in a novel manner; in fact, I have long since made some curious attempts in that direction, but they certainly were not applied to effect the objects now effected in puddling iron in the air-furnace. Emphatically let me call the attention of Mr. Pridoux, and all others who are pursuing the phantom of heated air for steam-boiler and other furnaces, to the *opus* of this question—the knotty and very important object which they should address themselves to discover. That is, a cheap fuel, cheaper than coal—say, about 1½d. per ton—for the preliminary heating of the air. This is the first main point. The next point is to consider whether it will be worth while to erect the necessary apparatus for heating and compressing (viz., hot-air stoves and blast-engines) to blow the air, which Mr. Pridoux has, to his own satisfaction, proved is of no use without compression into the furnaces; or whether it might not be better simply to put in the cheap fuel itself with a shovel. The more costly and circuitous process seems like getting a joint-stock company to manage a dairy, and which, though once tried with legislators in the direction, did not answer the expectations.

But I am always pleased to see men bold enough to plunge in *medias res*, and bring out something of their own, or which they make their own; and have, therefore, the more satisfaction in expressing my approval and concurrence where the remarks of this author agree with my own views, and tend towards the abatement of undoubted evils. He rightly indicates the true course to be taken in the improvement of the steam-engine, and condemns the present huge and dangerous boilers, with the waste of fuel entailed in heating them. It is a fact beyond question, that the gain of steam bears no ratio to the heat employed in heightening the draught for violent combustion, but that the difference is increase of waste passing up the chimney. It was this great evil, I conceive, which partly led Mr. C. Wye Williams to the invention of his conductor pins, one of those correct and ingenious refinements by which talent endeavours to strain after the extraction of good out of an evil system. But Mr. Pridoux does not appear to be aware how much has already been effected in the path of improvement he indicates, and in the very particulars which he holds desirable, step by step consecutively, from the economical generation of high-pressure steam in tubes to the most complete provisions for super-heating the cylinders during its expansion. When he quotes from a periodical writer, "that the man who should achieve a great reduction in the consumption of fuel in marine engines would deserve not only the largest fortune and general thanks of mankind, but the gratitude of the latest posterity," he evidently has no idea that this great work, to the extent of a saving of two-thirds the fuel, has already been effected with the most absolute and perfect detail, and that the author of it not only exists without such general thanks, but that the enormous dead weight of capital invested in the existing engines and boilers renders so vast an improvement—read letter, returned to its writer endorsed "not known." So different is practice to theory. Whatever posterity may think, we now living do not agree in the view of this periodical writer, and if Mr. Pridoux, who is fond of calculating, will calculate the amount of loss which would accrue to existing interests by introducing such an economical machine, he will appreciate the cause of the disagreement. Do we not know there was a great plague in London, and after the plague came a great fire, and that it is generally held that, *inter alia*, the fire devoured the plague. The title of *facto* is far stronger than the title of *jure*. A single house or a little village may easily be pulled down and built to a new pattern, but to demolish and reform great towns in full assemblage is a more heavy duty, except some natural or unnatural catastrophe comes in to our aid. Watt found it a hard struggle to knock over the old water-wheels, and substitute even them by the steam-engine. Who, then, is so visionary as to dream that even the giant economy (and the economy of two-thirds the present consumption of fuel is a monstrous giant) will have the power to annihilate the legion of steam-engines, Watt's legitimate descendants? Were an earthquake by land and a storm at sea to engulf the whole progeny every one, and a new phalanx, an army and a fleet of locomotives, stationary and marine, had to be levied, a monument would rise in record to the destruction, and we should not then see a single engine made upon imperfect principles.

The artillery of destruction, the monstrosity of which Mr. Pridoux complains, except a steam-boiler, would not be re-created with its weekly-recurring horrors. In their place we should have safe generators, made of small tubes, the explosion of one of which would scarcely quench a coal, much less a life; where the same water, circulating from day to day, with but trifling waste, and therefore trifling supply, keeps the tubes at sea cleaner than the inside of the mess-kettle. We should see the furnaces under those tubes, with their large evaporating surface, exerting energy sufficient to boil water, but not to melt iron; engineers and stokers on foreign stations would not emulate the existence which blesses a certain bird in France; and engines, high pressure, and condensing without the aid of a drop of water, would travel our streets in the compass of a knife-grinder's barrow. But we must wait for the earthquake, and meanwhile see every day enhance the difficulties of improvement, and increase the armies of machines ranged in opposition. To compare the impossible with the actual, would railway companies patronise balloons? What prudent company would annihilate its capital, even to triple its future profits? High cultivation in any art is very favourable to minute improvements, but to comprehensive changes it is totally inimical. The difficulty of doing is, then, to be measured by the difficulty to undo. That in all this I speak strictly to the letter, past contradiction or denial, the first authorities will admit to me in private; but, except myself, I know no rash impertinent to obtrude the truth upon the public ear. I heartily agree in Mr. Pridoux's spirited eulogium on the enlightened Boulton, who well deserves his association with a greater name, if, indeed, it be so; for if the genius of the one be a rare plant, I doubt whether the illumi-

nated uprightness of the other is not a rarer and a choicer specimen. The indignities and the neglect of Watt is a theme which has employed the pens of a thousand literateurs: they may rejoice in the prospect, though unconscious of it, that a tenfold harvest is being prepared for their posterity.—Aug. 17.

DAVID MUSHET.

## COPPER SMELTING.

Sir,—It is some time since I occupied a space in your valuable columns, but the article in the *Mining Journal* of the 12th inst., complaining of the position of the poor miners, groaning under the heavy burdens of their hard taskmasters, the smelters, has induced me again to make a few remarks. Although from time to time (I suppose when their position becomes intolerable) the miners complain, and letters appear, and recommendations are made as to the best method of improving their condition, still it all ends in nothing; the smelters relax the screw for a while a little, and the miner gradually reverts back to his former position, grovelling on until, by degrees, the screw is again tightened, and he cries out, and a repetition of the farce takes place. But is it not most extraordinary that in such a country as Great Britain one of her most valuable and important interests—that of her mines—should be allowed to continue for the shortest time in such a position, when a firm but united action would at once free them from thralldom, and allow them to receive at least a fair portion of those earnings which they so justly deserve, instead of allowing nearly the whole of their profits to go into the pockets of the already overgrown monopoly? One of the principal points set forth, in order to deter the miners from endeavouring to free themselves from this incubus, is the enormous capital which it is stated would be required to establish an independent smelting company, but such is far from the fact. The chief outlay would be in the purchase, or erection of works, which could, however, be regulated upon a very moderate scale. Then it is stated that the value of the ore could not be realised by the mines until a very long period had elapsed, comprising the time required to smelt the ore, and the credit given to the manufacturer, but this is altogether an erroneous impression. By the improved method now well known and practised in copper smelting, the time taken in reducing the ore to fine copper is under a week; and although it is held out that six months' credit is given to the manufacturer, such is not the case, as all the respectable consumers pay cash, taking the usual discount; and I believe were such an establishment formed, there would not be the slightest difficulty so to arrange that the ore could be smelted, sold, and the miner receive his money in return under two months from the time the ore was shipped from the mines. The principal thing required would be to form such a combination of mines, that sufficient ore could be supplied to keep the works in constant action, as nothing is so detrimental to any copper smelting establishment as a short supply of ore. To those acquainted with copper smelting, the cry that is raised about its being absolutely necessary to purchase foreign ores, to flux those from our own mines, is all nonsense, as nothing of the kind is required. I know of no British copper ores that, by proper treatment, cannot be made into the finest copper. Your remarks are quite correct respecting the enormous profits realised by the smelters from purchasing the ore at 21 cwt. to the ton, and upon the difference of the assay, which items I gave you in a former letter, which was inserted in your *Journal*, and which I shall be happy to repeat, together with many other astounding facts as regards the profits realised in copper smelting, should there be anything like the probability of effecting such a desirable end as that of the establishment of an independent copper miners' smelting company. Taking the average price paid for copper ores at the present time, the profit derived by the smelters upon each ton of fine copper is very nearly 30*l.* sterling, and some of the establishments smelt from 5000 to 6000 tons of fine copper per annum—truly, a princely income, and which it is certainly worth their making a strenuous effort to preserve. As a proof that an independent copper smelting establishment would answer, and pay well, we have not only the fact of those works which you name as doing so, the Alten Works, and those at Hamburg, but we have also that of an independent and spirited gentleman, who has erected copper-works close to Swansea, and during the last two or three years smelted the copper ores, the produce of his own mines, with the greatest success, no doubt preferring to receive the profits so obtained to giving them away to any other individuals whatever.—Swansea, Aug. 22. ANTI-MONOPOLIST.

## THE SULPHUR QUESTION.

Sir,—I beg to assure "A Chemist" that the "vested interest" lies entirely as yet to his side of the account; and, therefore, all the *animus* of which he gives me credit must be passed over to the same side. I have no ambition certainly of being considered an authority on vitriol making; but I think "A Chemist" would have gained himself a little more credit if his old-fashioned theory had been stated less dogmatically. Since your correspondent sets my opinions down as "simply absurd," I will not argue the point with him, but quote from a higher authority than mine a passage, which I submit will demonstrate that "A Chemist's" theory must undergo a radical modification. In Drs. Ronalds and Richardson's edition of Knapp's *Technology*, vol. I, page 246, there occurs this passage:—"Theory of the Process:—The transfer of the oxygen of the air to the sulphurous acid by means of nitric oxide is, however, by no means so simple a process as it appears and was at first supposed. Nitric acid has a great tendency to combine with sulphuric acid, and form a sulphate of nitric oxide ( $\text{NO}_2 \cdot 2\text{SO}_3$ ), which again has a strong tendency to unite with hydrated sulphuric acid (probably  $\text{NO}_2 \cdot 2\text{SO}_3 + \text{H}_2\text{O}$ ), so much so that the formation of sulphate of nitric oxide is very much favoured by the presence of hydrated sulphuric acid. This is the case in the chambers where this compound is frequently found in inch-thick crystalline layers, like ice on window panes, covering the walls, or falling sometimes as fine snow flakes, or even in more minute division as a pale cloud; for sulphurous acid and peroxide of nitrogen are immediately converted, but only in the presence of aqueous vapour, into sulphate of nitric oxide." A little further on we find the following remark:—"Formerly the formation of the crystals in the chambers was considered as something remarkable, and only of casual occurrence, until it was proved by the more recent researches of A. Rose, De la Prevostaye, Gay-Lussac, Gautier, and others, that the production of sulphuric acid was solely due to the decomposition of the sulphate of nitric oxide."

I would advise "A Chemist" to carefully study this theory; and by its light he will discover a means of reducing his 10 per cent. nitrate of soda to 6 per cent. at most. But all this, Mr. Editor, is beside the purpose. The question at issue is not the scientific theory of the formation of sulphuric acid—but, which is the cheapest and most advantageous state into which our waste sulphur can be converted?

The only part of your correspondent's letter which refers to this point is the last paragraph, and for the sake of argument we will assume his data to be correct. The statement stands as follows:—3 tons of sulphuric acid will cost in London 64*s.* more than it could be made in London for, with this important reservation, however—if the sulphur costs you the same in both places. But it so happens that the sulphur would cost in London 5*l.* per ton, and in Swansea nothing. The same holds good in the comparison that "A Chemist" draws, which is certainly a much stronger one than the way I have put it, as above; for he leaves out of the question altogether the immense difference in value between the manufactured vitriol and the raw brimstone. The case would stand thus:—Allowing the 2*l.* 4*s.* that "A Chemist" has placed in favour of the manufacture of sulphur to be correct, and say, for the sake of argument, that he can make his sulphur for 1*l.* 2*s.* per ton, and he sends his 1 ton of brimstone to London, and I send my 3 tons of acid to the same market, costing 44*s.* more than his brimstone, the result would be thus: 1 ton of brimstone 5*l.*, less 1*l.* 2*s.* for manufacture and carriage—nett 3*l.* 18*s.*; and 3 tons of vitriol 15*l.*, less 2*l.* 14*s.*—nett 12*l.* 6*s.*: leaving a nett profit in favour of sulphuric acid of 8*l.* 8*s.* per ton of brimstone.

"A Chemist's" comparison was going on very well, but he stops suddenly short, and leaves your readers to suppose that 1 ton of brimstone and 3 tons of vitriol are of exactly the same value, because they contain very nearly the same amount of sulphur. It must not be forgotten, however, that at present prices the sulphur converted into vitriol is worth three times as much as the same weight of sulphur as brimstone. If brimstone was 8*l.* per ton instead of 5*l.*, and vitriol the same price as it is now, I might be induced to coincide with your correspondent, and say, try for brimstone. But with brimstone at 4*l.* 12*s.* 6*d.* to 5*l.* per ton, and vitriol readily saleable at 5*l.* to 5*l.* 5*s.*, in any quantity I think I have shown, Mr. Editor, that there can be no question which is the more profitable. Besides, the one is a realised fact, the other is still a problem, which may or may not be solved.—London, Aug. 21. A SMELTER.

## PARSEY'S PERFECTED SYSTEM OF COMPRESSED-AIR POWER.

Sir,—Steam opposition, including other vested interests, is the only reason why compressed-air engines have not been adopted. Air-power is not only used, because there was no machine that could control it. That desideratum being indisputably accomplished in my patented engines, the expense of obtaining the power is harked upon as a sinister reason for not adopting them, which is an allegation beyond public experience to judge of,—faith in adverse opinions is a common impediment of public improvement. Without any improvements of compressing machinery, I have shown, on practical data, that the cost of air-power is considerably less than steam. Fuel having been the great item of economy in the improvement of steam-engines, the whole stress and argument is laid upon that item against the use of air-power. Although the saving on fuel may not exceed 20 or 25 per cent. (or if none at all), the saving on machinery, durability, repairs, &c., are plus economies, giving a total economy to a working account, which cannot be attained on any improvements of steam-machinery.

To silence false allegations, and to complete my compressed-air system, I have patented "improvements in machinery for obtaining and applying motive power by means of compressed-air," &c., endeavouring to insure the best and most economical means of obtaining and using the power. Pumps have never been judiciously constructed, and it has taken greater engine-power to work them than there is any necessity for. Much less power has been wanted than has been supposed for want of practical experience and sound judgment in making experiments. The valves of air-pumps have always been so small as to cause enormous friction, so much so as to heat the ejection pipes and pump barrel to so great a degree as to oblige parties to immerse them in cold water. This heat has been erroneously attributed to compression, while it is absolutely due to friction only.

My new pumps have valves as large as the pump-barrel, with hollow piston and hollow piston-rod for inlet. By the free egress, the piston has no longer to force the contents through a contracted frictional passage, causing back pressure on the piston. From this construction, the piston may strike, or fully bottom, leaving nothing to expand after the rising piston. By these valves, the column of pressure will be parallel, and set on every point to depress the valve. This new character of pump is also constructed in a series, one under the other, or turned off horizontally, each pump in the series decreasing in contents. According to the number will depend the density at which it will issue, or enter a reservoir. In this case, the piston will bottom as easily as a piston will descend only halfway at present, and high densities can be obtained on an equally advantageous ratio. By applying air-pumps to a locomotive, as feed-pumps to the cylinder from which my compressed-air engines are worked (as feed-pumps supply water to the boiler), the draught on the magazine is economised, and auxiliary power obtained, without cost, from momentum, in descending inclines and in stoppages.

Another patented means of obtaining large quantities of air is by a valve air-tight piston fixed on a framing, over which a heavy cylinder is turned mouth downwards, steadied by guides as it rises and falls. On pumping air, or other fluid, from the greater area of the cap of the cylinder to that of the inlet pipe, it will rise with little power. Notwithstanding its great weight, gravitation will bring it down, and the density or force of the outlet passage will be as the descending weight.

For important mining purposes, and particularly for perfectly preventing explosion from fire-damp, the adaptation is by uniting a number of these aerometers by a framing bolted on to the top of each cylinder, surrounding a hydraulic lift in the centre of them; the extension of the ram secured also to the framing and carrying all up together. On drawing off the water from under the ram, gravitation will bring down the whole in a body, blowing thousands of cubic feet of air, which may be conveyed down into mines, &c., by pipes, which can be laid into the most remote and dangerous parts, and the current led to up shafts, so as at all times to ventilate and blow out all foul gases. By raising these cylinders with a hydraulic lift, or other means, they will fill with water by the inlet pipe to each, and discharge very large quantities of water through outlet pipes—a small engine power only being required to elevate the ram. For many mining operations, land draining, and agricultural purposes, these aerometers will effect considerable savings. The same machinery is capable of being worked by hand on deck or between decks, to blow out emigrant and loaded ships from the very bottom; and they form also the means of blowing blast-furnaces at a great saving of engine power now used.

For underground railways, tunnels, &c., nothing is so fit, or can be so economical, as air power, especially with the means and improvements above detailed. As some guide to the expense of air power, on being called upon by the engineer of the sub-railway from the Great Western Station, Farringdon, to the Post Office, to compute the cost of air power, for an average (data given) equal to a steam locomotive of 15-in. diameter, 20-in. stroke, and 120 lbs. steam, I furnished a statement on undeniable practical data that such an engine would draw 750 tons both ways, or 1500 tons over 10 miles (the distance given) at the rate of 30 miles per hour, for the cost of 17*s.* 7½*d.* for air power, irrespective of my present improvements. All mining and underground interests are solicited to consider the pecuniary advantages of compressed-air power, as well as the perfect means of saving life, and securing the health and comfort of all persons employed below, where they are deprived of breathing the natural atmosphere.—Crescent-place, Burton-crescent, Aug. 12. A. PARSEY.

## THE KENMARE AND WEST OF IRELAND MINING COMPANY.

Sir,—In my report on the Kenmare Mines, read at the last general meeting, I studiously avoided making the slightest allusion to the late manager, Captain William Thomas, or his position with the company, either past or present. I regret he has not acted in the same manner towards me, by simply allowing me to stand before the shareholders on the strength of my own merits. To the directors I leave the task of defending themselves from the sweeping assertions he has made in the last *Journal*; they are well qualified, if they think proper, to do so.

To that portion of the letter which impeaches me with deception, I have merely to say that Capt. Thomas is misinformed; and he is the more likely to be so, having to obtain his information through secondary and doubtful channels. The agent and dressers are the same who were on the mine during his management, and I believe they carry out the usual routine on the floors. Capt. Thomas knows right well that, during the past two months, they had a parcel of gossan ores under treatment of which he himself did not know much of the value, and from the light nature of these ores the manager probably did not like to venture them in water, having had them separated underground, brought up in bags, and put to pile. He also knows perfectly well that, until the value of these ores were known, I gave orders that they should be kept in separate pile, and none of the better class of ores under the 36 mixed with them. Under these circumstances, to say the agents filled in rubbish with the ores is a fallacy, and the attempt to make such a circumstance a turning point for resentment and ill-feeling is unworthy of Capt. Thomas's position. We all know that to swell out a parcel of ore from any mine for a month or two is no criterion of its value or resources.

Like all agents engaged in the profession, I may sometimes have to plead guilty to errors in judgment, but a large circle of mining friends who have known me for many years, and who honour me with their confidence and the management of their affairs would, if necessary, defend me from such uncourteous epithets as Capt. Thomas deals in. Even making the greatest allowance for the state of his irritated feelings, I am proud to say that I gained my little knowledge of the rudiments of mining in a school where deception was never requisite. The directors are aware that I never sought this employment, and hold it more for the satisfaction of personal friends, who have a large interest, than for any other purpose. I can, therefore, have no object in practising deception. But having accepted the trust, I will endeavour to do my duty (and I hope I shall do it satisfactorily), fearless of all the attacks that can be made upon me, either public or private. Although the chairman and directors may not be acquainted with the peculiar names and details of practical mining, nevertheless I believe them to be gifted with a little of that useful commodity in business, common sense; and it is but justice to say that I never saw gentlemen more anxious to perform their duties, or display a greater amount of zeal, in order to master the difficulties of their very unpleasant position.

My belief is, that if they could only now touch their own and the shareholders' spare money, and had the chance of commencing the mine again *de novo*, with the amount of experience they have gained during the past few years, neither Captain Thomas nor myself might attempt to deceive them. It is now only two short months since Capt. Thomas ceased to have the management of the company's affairs, and it does seem rather strange that he never, before that period, could foresee the ruin that he now states must come upon the property. It is to be deplored that his prophetic vision was not awakened a little sooner: it might have saved a portion of the capital. He forgets the old and familiar adage, "It is too late to spare when all is spent." One would really imagine that he ought to be glad to escape from any further connection with a property which he has left, according to his own showing, on the verge of bankruptcy. JAMES SKIMMING.

Castle Blayney, Aug. 22.

## KENMARE MINING COMPANY.

Sir,—It was not only with surprise, but regret, that I perused in your *Journal* the report of the directors of this company, reflecting on Capt. Wm. Thomas, and to which a reply from that gentleman appeared in your last Number, which was temperate, and I think conclusive. My object in addressing you is to direct attention, your Dublin correspondent has so frequently done, to the system of management observed with reference to mines in this country.

I am fully aware that it would be absurd to expect that the management in London, or elsewhere, should be composed of practical men; all we look to is, that they place in the hands of the hands of men of integrity and honour, who can be trusted to be duly applied. But let me ask you, Sir, if the directors of this company have not exceeded these bounds? and that, with legal counsel, they considered that they had acquired mining knowledge? while, as regards the Stock Exchange, I can well understand that "flaming reports" and "shipment of ores," no matter what the cost, serve the purpose; and the declaration of a dividend out of capital, while the mine was in a state of loss, doubtless had the effect of obtaining further capital, by the issue of unallotted shares. I am but a small holder, but I trust that we may have a competent management in London, and not a set of lawyers and jobbers, and that the newly-appointed agent may yield more profitable returns to a steam weaver yet open.

I have heard that "a good ball makes a good captain," but I have yet to learn how a good captain can make a good ball, without he has the material to work upon. I do not think fair justice has been done to Capt. Thomas, who explains why there have been no returns of ore while the shaft was undergoing repairs and alterations; and I do not think it fair that he should not have credit for his exertions, instead of allowing others to take merit for his labour.—Dublin, Aug. 24. MURDOCH.

## GENERAL MINING COMPANY FOR IRELAND.

Sir,—I was somewhat more enlightened by the remarks of your Dublin correspondent as regards the proceedings of this company at their late meeting than that conveyed by your reporter, of whom, however, I have no cause to complain, as he gave the result, and it was not his province, I agree, to enter into discursive matters touching on private interests, although involved in a public company. This, however, is not my case; I am a shareholder, and bought my shares at 6*s.* I have only 45, but still that involved an outlay of 30*l.* 15*s.*, exclusive of commission on the purchase. Since then I have paid 10*s.* per share, or 22*l.* 10*s.*, making my present investment 30*l.* 15*s.*, and at the present moment I cannot get 2*l.* 5*s.* per share, or for the 45 shares 101*l.* 5*s.*, thus having to make a sacrifice of 215*l.* I do not say that every thing is to turn up well, and that there are to be no reverses; but this is what I do complain of—it appears by your columns, although we never get a report from the mines, that the concern is a good one; and a friend of mine, who was there last autumn, and in whose judgment I place some reliance, assured me that I might increase my interest with safety. So I did; for I was only a holder of 25 shares at the time, and see what are the results. I do not know the mines, but from a report I saw about twelve months since, from some mining agent or engineer the directors had employed, it seem to me that they were going on in themselves, and only wanted extension—I mean of the operation of the mines.

It is perfectly true that there has been an extension, but of what nature? Why, Sir, calls, and a further issue of shares, whereby some 3500*l.* or 4000*l.* were raised. This is all sunk and gone; the company, if your Dublin correspondent is right, is

\* Or run away. See *Times*, June 14, quoted by Mr. Pridoux.



The CHAIRMAN said, that a great deal had been paid for the tramroad; he considered the accounts most satisfactory; as, notwithstanding the great improvements at surface, the produce had been 5907, whilst the expenditure was only 4000.

Mr. ATKINSON said he had audited the accounts, they were most carefully kept, and vouchers produced for every item.

The CHAIRMAN said they had borne the difficulties of the mal-administration before them, and he was glad that the object had always been to carry on the adventure with economy. They had many difficulties to contend with; the machinery ought to have been finished by the 1st of April, but was not yet completed. It was well believed, if he had not gone down, it would have been in the same state; but it was twelve months ago. The committee had frequently advanced the money out of their own pockets, but had no security for the re-payment. He did not intend to make a motion, but he thought the committee should have the power to borrow not more than £5000, and in doing so their only object was to secure any advances they might think necessary, and at the present time more than paying its actual working expenses, but certain improvements were necessary, and it was not advisable they should stand still.



## Mining Correspondence.

## BRITISH MINES.

**ALFRED CONSOLS.**—Field's engine-shaft is sunk under the 120 fm. level 3 fms. 1 ft. ground good for sinking; the north lode in this level east is worth for copper ore 200t. per fathom; the south lode is worth 4t. per fathom. The south lode, in No. 1 winze, sinking under the 110 fm. level east, is worth for copper ore 23t. per fathom. The north lode, in No. 2 winze, sinking under the 110 fm. level east, is worth for copper ore 170t. per fathom. The south lode, in No. 2 winze, sinking under the 110 fm. level east, is worth for copper ore 78t. per fathom. No change in any other of the outcrop workings since last report; our tribute looks well. —M. WHITE: Aug. 21.

**ALTARIN CONSOLS.**—Since last report, there is a little improvement in the lode in the 10 fm. level east and west. There is every reason to expect a large quantity of tin in stopping the ground between the 10 and 20 fm. levels. I am glad to say the ground in the bottom of the shaft is somewhat easier, enabling us to proceed faster with the sinking, and, at the same time, make arrangements preparatory to our driving east and west on the course of the lode in the 20, where the same is now producing good work for tin. Our stamps are at work day and night, and we are in a fair way of getting a batch of tin ready for the market. —H. RYLANDS: Aug. 23.

**ARUNDELL.**—At the Victoria engine-shaft, sinking under the 25 fathom level, we have no sign of any foot-wall to the south as yet. We can see on the north side of the shaft, the lode for 12 fms. east, and on Friday and Saturday it yielded much more copper ore. I hope before we get to the foot-wall it will pay for dressing. In the 25 fm. cross-cut north, I think we have the south wall of the great lode; it is very much of the same character as in the long adit where we cut the south wall; its underlie is about 16 or 18 in. in the fm. We shall see more of the lode by Wednesday, when I shall write again. —Aug. 21.

At the Victoria engine-shaft, we have not any foot-wall to the lode; it continues much the same, with capel and muddle, intermixed with yellow copper ore, making a very kindly appearance for good, and on Friday and Saturday it yielded much more copper ore. I hope before we get to the foot-wall it will pay for dressing. In the 25 fm. cross-cut north, I think we have the south wall of the great lode; it is very much of the same character as in the long adit where we cut the south wall; its underlie is about 16 or 18 in. in the fm. We shall see more of the lode by Wednesday, when I shall write again. —Aug. 21.

**BEDFORD UNITED.**—The lode in the 130 east is 2½ ft. wide, yielding a little saving work; we are driving by the side of the lode west. In the 115 east the lode is 3 ft. wide, worth 5 tons of ore per fm. Panil's stopes in this level will turn out 6 tons, and Jeffrey's stopes 10 tons of ore per fathom. The lode in the 103 has not been taken down since last report. Jackson's stopes in this level are worth 6 tons of ore per fm. The lode in Eva's winze sinking in this level will produce 5 tons of ore per fm. There is no alteration in any other part of the mine. —J. PHILLIPS: Aug. 23.

**BIRCH ALLER.**—Pye's shaft, sinking below the 40 fm. level, is in easy and favourable ground. We have fallen in with a part of the lode; it produces a little lead, and is still holding on good, laying open profitable ground. In the 25 fm. level, we have made good progress. In the rise above this level there are good strings of lead, showing the lode to be alive, but it does not produce sufficient quantity to pay for dressing—the ground is very favourable for rising; in the south end in this level there is a very soft white barytes, surrounded by a pretty muddle, in a very congenial killas, and spotted with lead. We have now in the back of the end a large rough (as far as I can learn very much resembling the ground at Exmouth); it produces occasional stones of lead. The pitches are looking much the same, and producing good lead. The engine, with the flat-rod, &c., are working admirably. —G. K. OSKINS.

**BOLEWELL.**—In the 30 fm. level, driving east, the lode is 2 feet wide—muddle and goosan. Other levels are progressing favourably, but without any material alteration. —W. ROBERTS: Aug. 19.

**BORINGDON CONSOLS.**—I have set a lode in the back of the 12 fm. level, west of the rise, where we are breaking some good work. In the 13 fathom level, the lode is about 9 ft. wide, composed of a beautiful white spar, flookan, blende, muddle, and lead ore, part being saving work, and shows indications of a further improvement. The other parts of the mine are looking much the same as last reported. —W. GOSNOLD: Aug. 24.

**BOSORN TIN.**—The lode in the tribute pitch in the back of the 30 fm. level, west of Halket's shaft, is about 15 in. wide, saving and stamping for tin; the lode in the tribute pitch in the back of the 30, east of Halket's shaft, on Widen lode, is about 6 in. wide, good work for tin. The lode in the tribute pitch west of Davey's shaft, on Davey's lode, in the bottom of the 30, is about 9 in. wide, producing good stones of tin. The lode in the tribute pitch on the priam lode is about 18 in. wide, producing good stones of tin. The lode in the steps in the back of the 30, east of Halket's shaft, on Widen lode, is 6 in. wide, saving work for tin. No lode yet cut in the Well level. The water in the fork down to within 6 ft. of the 40 fm. level, and expect by the end of next week to be in fork, and the bottom level cleared, so that the mine may be inspected on Friday or Saturday next. —R. GOLDSWORTHY: Aug. 19.

**BRONFLOYD.**—No alteration in the character of the ground until yesterday, when we cut a large stream of water in the forebush, which is full of spar, and is generally composed of ground of a most congenial character. I will write again to-morrow or next day, if I see any further alteration. —J. JONES: Aug. 24.

**BRYNDALE.**—The communication between the 12 fm. level and the winze sunk under the adit has been effected; it contained a branch of solid ore, 4 inches wide throughout. The men have completed the cutting of a winze-plat, and will commence sinking under the 12 on the course of the lode this forenoon. The 12 fm. level, driving east on the rise on the north part of the lode, continues the same in appearance as when reported last week. The lode driving under the deposit of barytes is now on the lode; yesterday afternoon we rose about 5 cwt. of ore from it, we have also got a great deal of barytes, but not so compact and good as that at the surface; however, the level has intersected the western extreme of the deposit, therefore we shall, as soon as the north wall is intersected, drive east on the lode, where I expect to find good deposits of ore, as well as a continuation of barytes. The drawing-machine will go to work to-morrow. —J. ROACH: Aug. 24.

**BUTTERDON.**—The engine-shaft is sunk 24 fms. below the surface; for the last 3 fathoms the ground has been very soft, and the lode smaller than usual, but producing occasionally some good stones of ore. —J. KEMP: Aug. 22.

**CALSTOCK CONSOLS.**—The ground in the north cross-cut, on the cross-course, still continues troublesome for driving, in consequence of the very large size of the cross-course, and the wet nature of the ground. The water is principally issuing from the eastern gully, where we are intersecting the branch of ore, and in appearance in approaching the north copper lode. The cross-course is seen for 6 ft. wide, composed of rich goosan, horn-spar, and muddle, with black ore. The ground in the north cross-cut, towards the Zion lode, is becoming much wetter, and in the present end a branch, or floor, of capel has been cut, containing copper ore and muddle. In the south cross-cut the branches still continue, from which a quantity of water is issuing. The end is driven 3 fms. south of the branch of copper ore. —W. B. COLLIER.

**CALSTOCK UNITED.**—The men in the pump-shaft have resumed sinking, and the shaft work is in good working order. Nothing has been done in the 40 in the past week, as the water has been in, and the men have been employed at the capelan. We are progressing in the cross-cut north in the 10, and expect to cut the great lode in two months from this date. The lode in the 20, west of the cross-course, contains small leaders of copper of fine quality; and we consider that opening a few fathoms at this point will throw light on operations which we may propose in the 40 in the same line of ground. The men in the muddle pitches work well at the prices named. The tin lode cut at Caroline's 32 fm. level, east and west of the cross-cut, is 3½ ft. wide—saving work, with two rich leaders of tin. As we anticipated, the cutting through this lode has drained the ground to the 42 fm. level, and we expect it has done so for a considerable depth; hence we are clearing the old sinks out of the 42 to put men to stop the lode, where it will leave profit. We will prepare a parcel of tin for the market as soon as possible. —J. KENNEDY: Aug. 21.

**CAMBORNE CONSOLS.**—We cannot get into the 65 fathom level cross-cut, north from Wheel Gons shaft, until air-pipes are made and put in, which are preparing with all speed. The 10 fm. level, driving west from Tindal's shaft, continues to produce good stones of ore. —W. ROBERTS: Aug. 19.

**CARADON CONSOLS.**—During the past week our eastern shaftmen have completed the plat, and eased and divided the shaft; we shall commence sinking again next week. The 37 fm. level, where the lode and ground last the same; in this level the lode is as last reported. I should be glad to put four men in this end, and have done so on two occasions, but the men are so scarce, and work so plentiful, that there appears great difficulty in getting men, unless it be in some choice place. We are now in want of two men for the eastern shaft, but I hope to get a full crew in course of a few days. You shall be daily advised as soon as any change takes place. —Aug. 19.

**CARBERY WEST.**—A very decided improvement has taken place in the above mines during the past week. I noticed in my last that some grey ore was taken from the North Goleen shaft. To-day I have to add that the quantity of copper in the lode is very much increased, and is apparently still improving going down. Two most beautiful parallel lodes have been driven, the one about 15 fms. and the other about 24 fms. to the south of the Chief Constant lode; the southerly is from 3 to 4 ft. wide, composed of quartz, chlorite, and excellent specimens of grey copper ore. Carbery West is a very valuable piece of mining ground, highly metalliferous, and will, doubtless, by-and-by turn out an abundance of copper. —F. TREWEEK, Manager: Aug. 14.

The purser, who visited the mines with Capt. Trewweek, adds:—The appearances in the Goleen shaft are decidedly improved since my last letter—fine killas, strong and beautiful flookan, a lode of spar more than 4½ ft. wide, the entire ground kind both in the working and ore-bearing characters, and fine grey ore, with green carbonate of copper mixed all through. —G. RYLANDS: Aug. 14.

A letter addressed to Mr. St. Pierre Foley, inspecting engineer, &c., from a private gentleman interested in these mines, states:—"I am proud to inform you that the miners at Goleen shaft are getting large bunches of rich grey ore during this week. I was over this morning; the lode is getting broader, and runs the whole length of the shaft."

**CARVANNALL.**—The 96 fm. level, driving west, continues west 15t. per fathom. Other parts of the mine are without alteration. —W. ROBERTS: Aug. 18.

**CARVATH.**—We have drained this mine to a 12 fm. level; it appears this level is driven to a pretty good extent, but in consequence of some of the old timbers having given way we are not able as yet to examine it fully: it is evident, however, the old workings had plenty of copper here, they having explored on five or six lodes within the compass of 25 fms. in width. So far as we have been able to examine the mine already drained, I am well satisfied in finding so many lodes, all containing ores of great variety and richness, in quality, interesting and beautiful structure; but it must be understood that the old workings have taken away the richest of the ores all that depth, although there is much of the lode yet to explore that will pay for working. We have cleared two other shafts from surface to adit, and have others yet to clear. I consider it will require four months or more to drain the mine to the bottom, and clear and secure the various shafts and levels. —J. WILKS.

**CLIJAH AND WENTWORTH.**—Julia Lode: Walter's shaft is sunk 9 fms. below the 20 fm. level, or 45 fathoms from surface; for the last 25 fms. the lode has been gradually improving; the shaft at present will yield about 3 tons per fathom. The 10 fm. level will yield about 2 tons of ore per fathom. The 20 fm. level, east of Walter's shaft, is extended about 10 fathoms; lode disordered by means of the cross-cut. The 30 fm. level is extended east of Bolkington's winze 4 fathoms; about 4 tons of ore per fathom. The 40 fm. level, east and west of cross-course, are much the same as when last reported. We have seven pitches working, from 4s. 6d. to 12s. in 11. —J. CUDDELL: Aug. 19.

**COMMARTIN CONSOLS.**—We have this day intersected No. 2 lode in the bottom of the cross-cut, composed of flookan, muddle, and carbonate of lime, and beautifully intermixed with silver-lead ore. I cannot inform you of the size, as we have not yet

cut through the lode; there is a great deal of water issuing from the lode. I hope to report fully as to its character in my next. Our machinery works exceedingly well. —JOHN TREWEEK: Aug. 23.

**CONISTON UNITED.**—We have cut the lode in the low level, which is about 1 ft. wide; there is a little copper and muddle in it, but at the present point not of much value. There is not much alteration to notice in any other part of the mine. —J. BOURNE: Aug. 23.

**CRAIGWEN (NEAR DYNAW).**—The lode in the winze in No. 1 adit, on the silver-lead lode, will produce 1 ton per fm. The ground in the shaft in the lower adit is small and troublesome to sink. The wheel-pit is completed. The crushing-house will be ready for the beams this week; the wet weather has kept the masons back, or we should have all the beams up before this time. —HEON JONES: Aug. 23.

**CUBERT UNITED.**—At Treblekin, the lode in the engine-shaft is 16 in. wide, worth at the rate of 3 cwt. of lead per fathom. The lode in the 35, west end, is 1 ft. wide, composed of quartz, priam, muddle, and a little lead. The lode in the 35, east end, is 9 in. wide, composed of flookan and muddle. The lode in the 45, west end, is 1 foot wide, worth 3 cwt. of lead per fathom; the stopes in the back of this level are worth about 3 cwt. of lead per fathom. In driving in the 35 fm. level, the lode is 8 in. wide, composed of quartz, priam, flookan, and occasional stones of lead. At Treblekin, the lode in the engine-shaft is 10 in. wide, producing from 3 to 4 cwt. of lead per fathom. The 36 fm. level, south of engine-shaft, is communicated with the same level, north of sump winze. The lode in the 46, north end, is small and unproductive; the lode in the south end is 10 in. wide, composed of quartz, priam, flookan, and occasional spots of lead, bearing a very promising appearance indeed. The stopes in the back of the 46 fm. level are producing 14 cwt. of lead per fm. —A. DOWNS: Aug. 19.

**CWM DAREN.**—In the 30, west of engine-shaft, the lode is 4 ft. wide, yielding ½ ton of good copper ore per fm.; the end is now fresh to the run of ore ground discovered in the 20, and, from the indications, I am led to hold out better results. I have set a rise in the said level, about 12 fms. behind the adit; the lode is large, and at present will yield about 15 cwt. of copper ore per fm. In the 20, west of shaft, the lode is 2 ft. wide, but not to value. I have set the winze below the 20 again, but whether the men will go on with it is a matter of doubt, as there is still a little water rising from the lode. In the stopes over the winze the lode is 2½ ft. wide, yielding about 15 cwt. of lead and copper ore. In the adit level east the lode is of the same character as last reported. I purpose sampling 30 tons of copper ore on Wednesday next. —A. WATERS: Aug. 21.

**DEVON BULLER.**—Since writing to you yesterday, I beg to say the men this morning cut the south part of the lode, and, cutting through, they broke fine stones of copper ore. I will shortly give you further information. —M. BRYAN: Aug. 18.

—We could not cut through the lode, the water being so strong; it rose 4 fathoms in the shaft; as far as we have seen, the lode is a very promising one to produce ore in abundance. We have broken fine stones of ore, some of which I have in my possession for the meeting; as regards its size I cannot say; we have cut in 3 feet, but have not yet come to the north wall, but have fine stones of ore at that point. The wheel is at work, and, if possible, we intend to take the water out; had we a steam-engine we should soon master it. —M. STEPHENS: Aug. 21.

**DEVON UNITED.**—Everything at this mine is progressing satisfactorily, and I have no doubt, as we proceed with our various operations, we shall find them profitable of good results. —ANDREW BEAR: Aug. 24.

**DUNSLY WHEAL PHOENIX.**—There is no lode taken down in either of the stopes since my last. The ground in the cross-cut, north of eastern adit, is without alteration. We have got out of the run of pot ground in the western adit, so that the men in the shaft have no hindrance from one end of the week to the other.

**EAST CROWDALE.**—In the 68 fm. level east we have a solid branch 3 in. wide, composed of rich yellow ore and muddle; in the country, north of the lode, there are several small veins of ore, which we expect will enrich the lode at the point where it unites. The stopes in the bottom of the 58 is improved since my last, producing full 2 tons of ore per fm. —South Lode: The lode in the 68, west of shaft, is improved in appearance since my last, composed of capel, muddle, priam, and spots of ore. The tributers in the bottom of the 58 are earning fair wages. We expect to sample, on Friday next, from 45 to 50 tons of ore. —Aug. 19.

**EAST POLGOOTH.**—The engine-shaft is down 15 fms. 3 feet below the 30 fathom level—ground not altogether so favourable for sinking, a harder floor in the bottom of the shaft; I hope it will not continue long. Our engine is working well, so that the men in the shaft have no hindrance from one end of the week to the other.

**EAST WHEAL GEORGE.**—In the 44, west of shaft, we have some ore, but not enough to value. No alteration in any other part of the mine. —Aug. 19.

**EAST WHEAL LEISURE.**—In my letter of the 9th inst., I noticed that the new shaft was down for a 30 fm. level; since then we have driven 3 feet more, and carried the ground 7 ft. wide, to help to make the plat. On Saturday, we set 1 ft. more to drive, at 8 ft. 10s., and also a plat to cut, including a piece of ground to open in the west end of the shaft (to prepare for driving the south cross-cut), at 11t., as per bargain. We have put on four boys with the eight shaftmen, in order to hasten on the cutting of the plat, &c., without hindering the driving of the cross-cut. When this work is completed, we shall put the shaftmen to prepare for sinking at once, and other men in the cross-cut. We have put as many hands as we conveniently can to work, knowing that you will not be long in returning. Our engine is working well, so that the men in the shaft have no hindrance from one end of the week to the other.

**EAST WHEAL RUSSELL.**—Hitchin's shaft is sunk and made good 11 fms. below the 77 fm. level; the lode in the present bottom of the shaft is looking just the same as last reported—still composed of strong goosan. The 35 fm. level is a very promising end; we have grey ore and malleable on the lode. We have only yet driven a few feet. We have risen on the back of the tunnel level, against Homersham's shaft, 10 fms. 2 ft. We are getting on with the rods and gear-work for Homersham's shaft with all possible speed. We expect to get our things ready to work by the beginning of next week. —W. MITCHELL: Aug. 24.

**ESGARWYNN.**—We have driven the south cross-cut through the lode in the 15 fm. level, and are stopping the back of the level on the best spot of ore. There is no ore in the north cross-cut in the 25, but the ground in the 25, in the 15 fathom level west, by the north side of the lode, the ore is very rich, and dipping westward, to east end is not so good. We are stopping away the ore ground in the Hospital, west of the old workings; there is a strong mixture of ore and jack. I have tried to keep these separate, and as soon as I can I will make a place underground to keep the jack in from the ore. The stopes appear better in the 15 fm. level in the western part this week, and carry on all through the ground. The new drawing machine is working apace, it draws up the large kibble quite easy. It is not, however, working double yet until we have finished the repairs in the engine-shaft, as it is better to have everything quite safe than run the risk of accident. We are erecting a new engine, and working the round baddies, by the same water. —T. WILLIAMS.

**FEED DONALD.**—I arrived at the mine to-day, and have gone over the ground; the prospect is as fine as ever I saw. I intend to get men to work at once. Monday, and also intend to get the houses up as early as possible, but the road is very bad, we can get nothing to or from the mine at present. I am getting barrows and other tools for the men. I think we can raise ore very soon, but shall be able to make any return until there is a new road. —J. MURPHY: Aug. 17.

**GARREG.**—I have examined the two east and west lodes very minutely that run through the Garreg sett. The adit level is communicated with the storehouse-shaft, which is sunk 42 fms. from surface on the south-east and west lode. There is a cross-cut or level driven in about 36 fms. to the east; on the lode at that distance there is a shaft or winze sunk, about 3 or 4 fms. deep, below the level; this is about 10 fms. from the east end. There is a lode in the winze 18 in. wide, composed of carbonate of lime and clay, with good stones of lead in the clay. There is at present a set of 6-in. pumps in the shaft. At the top of this winze there is a lode coming in at angles, running south, 3 ft. wide. I consider this place is well worthy of a trial. The east end of this level is driven into the black shale; in the west end the lode is 3 in. wide, nearly 2 in. of which is lead ore, and spar and clay. I consider this lode worth trying, as it is all untried ground. To the west this level is driven about 8 fms. from the cross-cut; the shaft, 42 fms. deep, is in good condition, and the adit level unwaters the mine to that depth. This part of the sett may be proved without the aid of expensive machinery. I would recommend a trial to be made immediately, during the dry weather, in the winze now sunk 3 or 4 fms. below the level. The other east and west lode runs parallel with this. We have had the engine-boiler repaired, and the water was out of the mine this morning; the men have again begun to drive in the 30 fm. level. We were obliged to take the boiler out of its place before we could get it repaired; it seems to hold its water very well, and supplies the engine well with steam. We have about 2 fms. more to drive before we can arrive at the distance the shoot of ore was met with in the upper level.—P.S. The lode in the present end of the 30 fm. level is composed of hard spar and clay, but without lead. —WILLIAM RAMSEY.

**GEIFRON.**—I have no alteration to report; we are getting on as fast as possible with our surface operations. —Aug. 19.

**GREAT CAMBRIAN MINING AND QUARRYING COMPANY.**—The report of the superintendent of the mines this week is to the following effect:—As to Maestryr: No. 2 level is 3 ft. wide, and produces small quantities of good lead. No. 3 level is 10 ft. wide, and continues rich in lead and blende. No. 5, sink 4 ft. 6 in. wide, and is productive in copper and blende, with some lead. No. 4 level is 4 ft. wide, producing lead and blende as last reported. No. 4 sink is 3 ft. wide, rich in lead and blende. At No. 6 adit level there are spots of good lead in spar and schist. No. 6 shaft is 5 ft. wide, producing a greater proportion of lead and less blende. Llynwryn and Bwlch-coch is the same as last reported—number of workmen employed, 70. There is a great quantity of blende dressed, and next week I expect to have some lead, and a considerable quantity of lead and blende mixed ready for sale.

**GREAT COWARCH.**—The ground in the 30 cross-cut is a little eased since I last wrote you. No change in any other part of the mine to notice of importance since I last reported. —R. NORTON: Aug. 23.

**GREAT ONSLOW CONSOLIDATED.**—The lode in the 72, east of the winze-shaft, is improving. The 72, west of the winze-shaft, we are driving by the side of the lode; consequently, we cannot report its value. The lode in the 64, west of the winze-shaft, is worth for ore 50t. per fm. The stopes throughout the mine are, on the whole, very nearly the same as last reported. —G. RICKARD: Aug. 23.

**GREAT SOUTH TOLGUS.**—The lode in the 60 fm. level is 1 foot wide—unproductive; has been a little disordered by a small cross-course. The winze is suspended in consequence of the water. The cross-cuts in the 70 and 80 fm. levels are progressing favourably. —J. DAW: Aug. 19.

**GREAT TREGUNE CONSOLS.**—We have nearly completed our lobby to wheel-pit at Carke's, and are engaged about the wheel-pit, and shall have no time in erecting the wheel. The flap-jack still keeps the water well, but it is nearly to its power. The lode in Carke's shaft is large, and producing more muddle. There is no alteration in Hobler's shaft. —JOHN SPANCO.

**GREAT WHEAL BADDER.**—The new shaft is down about 6 fms. below the 50, ground still hard; I set 1 fathom on Saturday, at 35t. per fathom. The lode in the stopes in the bottom of the 40 is 1½ ft. wide, rich for lead. The lode in the 40 east is 1 ft. wide in the killas, producing good work for lead. The stopes in the back of this level are looking pretty well. The lode in the winze below the 30 is 1 ft. wide, producing good stones of lead. The lode in the 20, west from Sanderland's, is 2 feet wide, looking promising, and I think there is a great chance of its being more productive at a deeper level. —JOHN ROBERTS: Aug. 22.

**GREAT WHEAL VOR.**—The 100-in. cylinder engine has been entirely placed and connected, the lift dropped in Cross's shaft, and it will commence forking the water from the body of the mine on Wednesday, the 30th inst. On Wheal Metal lode the shaft is now sunk nearly 60 fathoms, and the lode in it is improving. In the 50 west the lode is worth 60t. per fathom; in the 30 east it is worth 20t. per fathom,

had such confidence in the undertaking that he was willing to make any advance necessary, and he only wished the shareholders to empower the committee to raise £100, to secure the return of such advances. He would now move the adoption of the report and accounts.

Mr. BIRKENHEAD seconded the resolution, which was carried unanimously.

Mr. BIRKENHEAD wished to know the expense of the train-road, as he considered it one of the most important improvements that had been made.

The Chairman said it only cost about £200, and the expense would be saved in less than six months. The only question for the shareholders was, whether they would empower the committee to raise a sum of money not exceeding £500?

Mr. ATKINSON said that eventually they would only have to pay a call, and he had perfect confidence in the committee that it would afford him the greatest pleasure to move that they be empowered to raise the necessary capital, and in doing so he believed the shareholders understood that it was merely securing to the committee any advances they might make.

Mr. ATKINSON seconded the resolution, which was carried unanimously.

Mr. CATTARUS said, he was satisfied the whole body of shareholders had the greatest confidence in their excellent committee; he should, therefore, move that Messrs. Sewell, Green, Humphreys, Beekers, and Delamare, be re-appointed.

Mr. BIRKENHEAD seconded the resolution, which was carried unanimously.—The same motions were also re-elected.

Mr. CATTARUS proposed a vote of thanks to the committee.

Mr. ATKINSON, in seconding the resolution, highly eulogized the committee, and he satisfied they had spared no exertion to make it a profitable adventure.—The resolution was unanimously carried.

The proceedings then terminated with a cordial vote of thanks to the chairman.

## MACHINO SLATE AND SLAB COMPANY.

The annual general meeting of this company was held at the Erskine Arms Hotel, Glasgow, on Wednesday, the 16th instant.

Mr. T. H. WHITKEL in the chair.

The Secretary read the following reports:—

## DIRECTOR'S REPORT.

In making this report the directors have but few subjects to refer to, beyond presenting the accounts for the year ending 30th June last. From these documents it will be seen that the gross balance on the year's operations, including that brought forward from last year, is £1350t. 4s. 9d., out of which sum it is proposed to pay a dividend of 25s. per share on the old stock, equal to 5 per cent., and 5s. 6d. per share on the new stock, giving a total of 42s. 6d. In addition to this, your directors have decided on paying a further sum, equal to 2½ per cent., as an incentive for the redemption of the capital invested—say 12s. 6d. per old share, amounting to 200t.; but as the new shares have been so lately created they do not consider it necessary to pay anything on that account this year. This will leave a balance of 7100t. 4s. 9d. to be carried forward to the next year's account.

The result would have been much more satisfactory had not the operations of the quarry during the past year been impeded by a pest, or fault; and your directors anticipate that the profits would have been increased by 1200t. or 1500t. This is one of the features peculiar to mining adventures; but as the pest has been now cleared away, or nearly so, it is to be hoped nothing of the kind will again be met with. The object of carriage to the shipping port has been one of considerable anxiety to your directors. The proprietors are already aware that arrangements were all but completed with the Forting Railway Company to make a branch line to the quarry, but at the last moment, and not until the proceedings in Parliament for the purpose had been commenced, the directors asked for terms which your board could not think of recommending, or even entertaining; the negotiations were, therefore, brought to a close, and steps were taken to procure carriers for the conveyance of the slates to Conway, and they have the satisfaction of reporting that they have completed a contract with Mr. Thomas Spooner, of Leicester, to carry the entire make down to Conway for 10s. per ton. His arrangements are now completed, and the carriage is being despatched very satisfactorily. This is a point on which your directors have every reason to be satisfied, and they feel assured that this branch of the business is in the hands of one who will perform it with every degree of satisfaction. The contract will now be submitted, for the purpose of being sealed.

The value of slates and slabs made during the year is 7930t. 13s. 11d., and the weight 600 tons 9 cwt. 3 qrs.

The number of meetings of the board since the last annual report is seven, at which all the members have been present.

Your directors continue to have unabated confidence in the prospects of the quarry, and they feel certain that the quality of their produce, as regards slabs, can be equalled by any other quarry in the principality; for details, however, on this point, reference is solicited to the manager's report herewith.

## MANAGER'S REPORT.

Aug. 15.—In my half-yearly report, I have merely to state that the pest on the upper floor has been nearly removed, and that the slate rock shows good above and below, out of which both slates and slabs are being made. In consequence of a band of hard rock running through the whole length of the large bargain, the make of slabs for the half-year has not been so great as it otherwise would have been. I am, however, happy to state that it is nearly all removed from this bargain. The upper part of the quarry is not looking so well as has hitherto done, the rock turning out smaller than was expected; I would, therefore, again urge the necessity of proceeding as quickly as possible with the enlarging of the two openings, where I am of opinion the great body of good slate rock lies, and where it can be got at with greater facility, having considerably less top rock. I beg to draw attention to the importance of adopting measures for converting the bastard rock into slabs. Mr. Thomas Spooner has commenced the haulage, the stock has been gradually increasing from off the slate banks. The demand for slates and slabs is as great as ever; indeed, for the latter it is even greater. —J. S. SPENCER.

On the motion of the Chairman, the reports were received and adopted, and a dividend, payable on and after the first day of September next.

In accordance with the terms of the deed of settlement, the directors and additional directors, named in the following gentlemen were elected as directors for the ensuing year:—Messrs. Trowson, Wheeler, C. E. Spooner, and W. Miles. Mr. Thomas Spooner was appointed auditor.

In consequence of the removal of the shipping port from Taly-Cefn to Conway (to avoid the difficulty of obtaining vessels able to lower their masts to pass the bridge and suspension bridges), it was unanimously resolved to transfer the head office of the company from the works to the latter place, and Mr. T. H. Wheeler was elected resident director, to superintend the same.

A vote of thanks was then passed to the chairman, and the meeting separated.

**MORE ENGINEERING.**—It is with great satisfaction we have to notice the progress made by Mr. G. C. Greenwell, C.E., of Newcastle-upon-Tyne, in his practical course on *Machine Engineering*. We have heretofore alluded to the information which he has afforded in our columns to those who are about to emigrate to other countries, and now we are glad to say that, to a certain extent, guide them in the adventures they are about to undertake. In the latter portions of his treatise, Mr. Greenwell shows not only the nature of boring, but likewise the cost of the machinery required effectively to bring mine into active operation. At the present time, when so much doubt and distrust is thrown upon mining in general, this work is invaluable; it not only shows the methods pursued in English mines, but likewise in continental workings, so that this book may be considered a complete *code meum* for miners. The timbers required for supporting the shafts, together with their requisite dimensions, are given, and the several localities are delineated upon the sections of machinery are well explained, and the description of them is plainly elucidated. The engines likewise required for mining operations are also faithfully described; and while so much detail exists, as it unfortunately does, with regard to mining enterprise, Mr. Greenwell's work may be hailed with satisfaction, affording not only information to the miner, but as well to the uninitiated.

**TO MINERS AND CONTRACTORS—ECONOMY AND HUMANITY.**—In the construction of a deep sewer recently at Stockport, Rogers' Patent Apparatus for forming Sewers, Tunnels, and Ways, was used for the excavation of a tunnel for the sewer, through loose sandy ground, and by the aid of the apparatus the work was effected with great regularity and safety to the men, an open cutting, 26 feet deep, being made, and the earth, which was about to emigrate to other countries, was kept in the district. The object of this invention is to save the cost and avoid the danger to persons and property consequent on the opening up of the streets and the removal of the metropolis, and other large cities and towns, as well as for the formation of railway tunnels and other subterranean excavations of earthwork. The various parts of the apparatus being prepared of any shape and size required, the mode of using it is as follows:—The proper level for the bottom of the sewer or tunnel being determined, an opening or shaft is to be excavated from the surface at the most advantageous place over the direct line of the sewer or tunnel, and of sufficient size for the brickwork at the bottom, and sunk to the proper level. The shaft being sunk to the proper depth, the first thing to be done is to build the invert brickwork to the



**TAMAR SILVER-LEAD.**—In the 215 and the lode is disordered and unproductive. In the 205 and the lode is 2 feet wide, composed of apatite and ore. In the 199 and the lode is 2 1/2 ft. wide, composed of mende and ore, good saving of work. In the 175 and the lode is 1 1/2 ft. wide, composed of mende and ore, good saving of work. In the 160 and the lode is 1 1/2 ft. wide, composed of mende and ore, good saving of work. In the 142 and the lode is 18 in. wide, composed of mende and ore, good saving of work.







third sale of ore this year. In 1917, the company sold 100,000 tons of ore, and in 1918, 150,000 tons. The company is now planning to build a new plant at the mine, and to increase its output to 200,000 tons per year.







# Notices to Correspondents.

\* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly sent on receipt: it then forms an accumulating useful work of reference.

**VITIAN CONSOLS MINES.**—Sir: It is known to a correspondent, "M. S. H.," from chance information received, I understand this mine has been discontinued, in consequence of the company not getting a proper title to same. The deposit of 2s. 6d. per share, whether on 10, 25, 50, or 100 shares, may be considered as lost nominally, if not legally. The directors (whose names are for the present suppressed), including the secretary, do not condescend to give any information, either respecting the mine or the deposits received—thus adding insult to injury.—T. L.: Brighton, Aug. 21.

**W. M. (Liverpool).**—The fee on leaving petition for grant of letters patent is 5l. **TESTIMONIAL FOR MR. GUYDALL.**—Sir: I was much pleased to find a testimonial all about for presentation to the gold mining shareholders' friend, H. Guydall, Esq. I can assure your correspondent, from Birmingham, nothing would give me greater pleasure than to subscribe to a handsome suitable piece of plate, manufactured from the purest Californian and Australian gold, emblematic of his valuable services.—J. W. L.: Brighton, Aug. 18.

**A. B. (Brighton).**—The company is not singular, it is not the first by a good many which has paid dividends out of capital. It is not only in mining companies that accounts are asked; in several of our largest railway schemes the secretary has been directed to make "things pleasant." We do all we can to protect the public; if they are negligent of their interests it is not our fault. Our warnings pass unheeded so long as they are in a state of prosperity; but the moment that adverse circumstances occur, in too many instances caused by their own negligence and folly, they then apply to us, with an *ex parte* statement, for redress.

**IRISH MINING CONSOLA.**—Sir: Your favourable notice of this company, on its formation, induces me to ask a small space in your Journal of this week. Will the secretary have the goodness to inform me why the fortnightly report of the captain has been discontinued to be inserted? It used to appear regularly, and then we knew what was doing, but of late only one report has appeared, and that not satisfactory. I had a circular to attend the last meeting, I think on the 31st July, but in consequence of illness was prevented; at any rate I expected as usual a printed report and statement of accounts, but these have not arrived, and it is now a fortnight since the meeting. It has been stated in your Journal that this company is to be connected with the Mizen Head Mining Company, either by the purchase of the Mizen Mine, or the sale of Irish Consols to them. I presume the shareholders will be consulted in the matter before any steps are finally concluded.—A. SHANAHAN: Stourminster, Aug. 17.

**PRINCE OF WALES MINES.**—We have received several communications respecting the management of this valuable property, and to which we shall more fully allude next week. The affairs of the company are carried on in Sheffield, and although it has been established for some time, no meeting has taken place, or any accounts rendered to the shareholders or the proceedings of the committee of management. We are informed that the directors include gentlemen of the highest respectability, although little acquainted with mining operations. Surely they ought to call the shareholders together, and consult them upon the best means to be adopted for profitably working the mines.

**A Subscriber (Liskeard)** should at least authenticate his communication, when requesting us to alter the prices of shares. The quotation alluded to, however, was inserted on good authority, and was undoubtedly correct.

**ADVERTISING PRICES.**—Sir: It is with feelings of great regret that I see the good and wholesome practice of advertising the price of shares, in your valuable Journal, is falling into disuse among brokers, and I am sure that by discontinuing this they prevent many from investing in mining shares. For one, and I know it to be the case with many others, like to see not only the shares advertised, but also the price at which they can be bought.—W. W. L.: London, Aug. 26.

**Chemist (Liverpool).**—If a clear regulus can be obtained, with practical men there is but little difficulty in the ulterior operations.

**SORTED CONSOLA.**—Sir: In the Journal of the 19th I see a report from this mine, commencing thus:—"Our eastern end is just as last reported, worth about 4 tons per fm. We have driven during the past week about 5 fms. through a most magnificent lode, which will turn out from 6 to 7 tons per fm. Now, what I want to know is this, as, according to the report, the eastern end is just as last reported, worth 4 tons per fm., on what part of the mine is the magnificent lode driven 5 fms. in one week, and producing 32½ tons of ore?"—GEORGE HOBBS: Horshambridge, near Tarncliffe, Aug. 21.

**WEST MARLBOROUGH.**—Sir: The doctrine enunciated by Mr. Ambrose Moore (who is a director of this company, in addition to being one of the directors of the London and Joint-Stock Bank) in most preposterous. The public subscribe their 20s. a share freely, on the faith of public names, and the promise to conduct the concern under the "Cost-book." The directors seem to consider the last named appellation as a cloak, whereby to commit all manner of monstrous absurdities. Much more than two years have now elapsed since the formation of this connection, and we have never had a balance-sheet or meeting. Must not every impartial person, who peruses this, acknowledge that the present advantage a director has over a shareholder is fully equal to that possessed by the man who practices the pea and thimble-rig? He is perfectly cognizant of all that is going on, and can feather his nest accordingly. These shares have fallen from 40s. to 3s., and a fine field there has been for the operations of the initiated. Owing to the derelictions of the directors, I am not quite sure if every registered shareholder is not liable for any immense contract that may be made, under the law of common partnership. Mr. Murray and his gold-pea enhances the value of the shares, last Oct., fully 50 per cent., and perhaps Mr. Ambrose Moore would just be as good as to let us know our balance after two years' silence, in order that we may be as *au fait* as himself as to our actual position. It is said 10s. to 12s. per share is still left.—H. GUYDALL: Grande Rue Boulogne, Aug. 22.

**PARLIAMENTARY COMMITTEE OF THE GOLD MINING BUBBLES OF 1851-2.**—Sir: An enquiry is imperatively necessary, as considering the amount of money not accounted for. Nothing so gross and illegal has occurred since the South Sea bubble of last century. Black mail has been levied on the industrious class of nearly every commercial town in the United Kingdom with impunity, and the poor dupes are unable to combine together to obtain redress, without enormous labour, owing to their being so scattered. An alteration in the present laws must be made. The relative position of shareholder and director must be defined. It is now in the power of directors not to call a meeting for two or three years, then to shut up the office, and the scrip-holders have no redress except a bill in equity. They may perhaps then find out they are being needly advertised and men of straw, or those having no principle whatever. I lately had occasion to speak of practices of certain directors of a gold mining company, the most notorious of a bad lot. I have had three writs served upon me by three directors for libel! and this was done at the recommendation of their respectable solicitor. It was also decided that the expenses should be paid out of the funds of the company! I hold 645 shares, and beg to inform the said limb of the law that there are bounds to the ridiculous. I have supposed ill-illnesses, from charitable motives, but if it is supposed I am to be bullied, he will find he has caught a Tartar. Such a roll in pique as I am preparing, in case of further annoyance, has not been seen for many a day.—H. GUYDALL.

**C. G. B. (Regent's-park).**—It is stated that about 9s. per share will be returned: though many may seem dissatisfied with this, yet probably it is the best solution that could be arrived at. Nearly all the other companies have expended their capital; some have rendered no accounts, whilst others have disbursed all their money without any return.

**Inquirer (Liverpool).**—So much doubt exists, that we should be sorry to hazard a decided judgment on the question; the opinions of eminent men, on whom the public could place confidence, are so diverse on both sides.

**MINING ACCOUNTS.**—Sir: During the last 40 years I have been an adventurer in Cornish mines, and rarely indeed have I ever seen mining accounts kept as they ought to be: those issued by Mr. Vawdry, of Stray Park Mines, I consider to be perfect, and if his system of book-keeping and management was generally adopted, Cornwall would at once take the most active measures for the immediate working of the mine. A fair majority assented to continue operations, and the directors further promised in the "statement," that if such should be the case, "arrangements could be made for holding stated periodical meetings of shareholders." The "active measures" and "periodical meetings" may, I suppose, be classed with other delusions in gold mining enterprises.—F. A.

**P. S.**—A right of the accounts would be consolatory, even if not satisfactory.

**C. W. (Hoxton).**—Pipelay has a greyish or yellowish white colour, an earthy fracture, and smooth glassy feel; it adheres pretty strongly to the tongue, is very plastic, and is infusible. It is manufactured into tobacco-pipes, and is the basis of the Queen's ware pottery. An extensive stratum of pipelay lies in a horizontal position above the chalk, extending from the Handpost Point to beyond Corie Castle, in Dorsetshire. It may be seen in the hills near Poole, and in many parts of the extensive tract called the Trough of Poole.

**Practical (Truro).**—The separators have been used with great effect, both in Norway, Sweden, Germany, and several other countries, and found there to work economically and efficiently.

**GREAT WESTERN STOCKS.**—Sir: I beg to call your attention to the slight and unexpected rapid decline which has recently taken place in the price of the Great Western Stocks, caused, no doubt, by a falling off of ¼ per cent. on the forthcoming half-yearly dividends; but this rapid decline in price took place about a fortnight ago, whereas the company's half-yearly statement of accounts was not sent to the proprietors before Tuesday last, therefore a knowledge of the diminished dividend must have been imparted to a favoured few, even before the half-yearly statement was printed, who at once poured their shares into the market, to the prejudice of their less distinguished brethren. Those who were favoured with a pre-knowledge of the company's affairs, and who consequently poured their shares into the market, knew that the reason of the falling off of the ¼ per cent. for the present half-year was owing to a payment of 30,000l., which the directors have to make to the Shrewsbury Companies, and which must be deducted from the present dividend; but this circumstance they, no doubt, most scrupulously avoided, or omitted, to mention. I, however, beg to notify the fact, through the medium of your valuable columns, that precaution may be used, in future, to prevent the emanation of any private information from the company's office, so that shareholders may not feel a want of proper confidence in the management of those to whose care their property is entrusted.—A. SHANAHAN: Aug. 18.

**T. C. S. (Baker-street).**—When shareholders will not attend meetings and protest against the committee of management, if they do not agree with their proceedings, they are solely to blame. We report the meetings, but as we are not adventurers, can have no voice.

We have particularly to request that subscribers and others, in paying accounts, will send cheques or post-office orders, in preference to postage-stamps.

**THE TIN TRADE.**—Sir: Would any of your correspondents oblige by informing us the average weight of a slab of Banca tin at the Dutch sale, being 132,564 slabs, sold lately, according to your Journal of the 19th inst. I also, what an English ton of 20 quintals—of 112 livres avoirdupois—becomes, giving 75 per cent. of metal, at the price of 70l., when sent to the Cornish smelting houses; we mean to say, how many English pounds are generally deducted by the smelters from one English ton of tin? and how much money has a French tin miner to receive, sending to England at the price of 70l. an English ton of black tin, producing 75 per cent. I will be glad to consider ourselves as very much obliged to any one who will give us a rule.—F. B.: La Turballe, Aug. 22.

**PRINCE OF WALES MINES.**—Sir: Will any of your correspondents have the goodness to give some information respecting the proceedings of this company? Although the committee of management have been appointed upwards of 15 months, hitherto no meetings of shareholders have been convened, or any accounts furnished of their operations. Have the managers rejected the suggestions of Mr. St. Pierre Polier, to work the mine in such a manner as to secure early profits? It is now high time the shareholders should open their eyes.—LARGO.

**LAKY MINES.**—We shall be glad if our correspondent will furnish us with the amount of dividends already paid in this mine, in addition to the one recently declared.

**WELSH POTASH MINING COMPANY.**—Sir: The manager of this company replies unwisely to my enquiry in your Journal of the 9th, concerning the truth or falsehood of the charge "that it had not sold 1 lb. of ore." I had no idea that my motives for endeavouring to evoke facts would have been impugned in so naked and libellous a manner, and with an opacity of judgment which I scarcely thought Mr. Wilkinson would have been unguarded enough to have shown. However, to satisfy him, if possible, of the injustice of his suspicions, I can assure him that, at the time he was pursuing an honourable calling not many miles from the Queen's, and in his ignorance of the existence of the mine he has now the management of, I was most interested in its fate, and, having had the liveliest faith in its capabilities whenever it should be energetically worked, was as indignant as Mr. Wilkinson himself at a suspicion of the veracity of his return being even whispered; but as so startling a communication was made, as quoted in my former letter, I preferred calling forth a public refutation of the falsehood of the charge, to a private confirmation of my knowledge of the same from the office of the purchasers of the 100 tons stated to have been sold.—ANGELO: Fenchurch-street, Aug. 23.

**GOLD MINING COMPANIES.**—H. E. Michell's papers, How Operations could be conducted to a Successful Issue, will be continued in our next Journal.

**J. D. (New Inn).**—The association was not brought out this year, owing to the state of the market. At so distant a spot, under even the most favourable phases, it would have been difficult to have formed a company: to avoid expense, the agent was not sent out to the scene of operations. The proprietors have obtained from the Government a further concession, until the commencement of October, 1855.

**T. Y. (New Inn).**—The public is precluded from making use of the invention without the inventor's permission, or some one representing him. This privilege is secured to the inventor by letters patent, and the party to whom the privilege is granted is termed the patentee.

**DRAWNIGHTON MINES.**—A Shareholder (Okehampton), who states that, with one exception, he is the only proprietor in that neighbourhood, complains that the committee of management have not shown themselves men of business, as the mine ought to have been brought before this time into a state to pay all cost of working—if not dividends. The party suggested by our correspondent to call a general meeting, we fear would not effect any great benefit; some shareholder should do so in whom the mining community have more confidence.

**WELSH LEMON.**—Sir: Why the shareholders in this mine, residing at a distance, do not call a meeting, I am at a loss to know. See what a price our property is at—Lemons, 15s. paid, now 30s.; Tremaynes, cost 36l., now 54l.; West Providence, cost 35l., now under 24l.; Wellington, cost 17l., now 10s.—all the same purser. Can we have a reason for it?—A. SUFFERS: Aug. 23.

**CAPTAIN MASON.**—Sir: The following is a report (true copy) from the captain of this mine, now before the special "protective management" of Messrs. Hobson, Hudson, Pitt, Mitchell, Peter, and Fordham, of Sheffield. The month's cost was 122l. 3s. 7½d.—no machinery whatever.—P. O.: Aug. 24.

**Digby, Aug. 12.**—I have stopped three of the bargains, by Mr. Pitt's order. We ought to sink the shaft deeper, to meet the new level; the lode begins to come in at the bottom of Drilling, with an excellent good ore in it.—PETER HUGHES.

**T. G. (Bath).**—Grawwacke, or greywacke, is composed principally of pieces of quartz, flinty slate, and clay-slate. It is a rock formation, cemented by a clay-slate basis; the pieces of which it consists vary in size from small grains to 2 and 3 in. in circumference.

**TRENNOW CONSOLS.**—Sir: I observe, in the Mining Journal of the 19th, under the head of Notices to Correspondents, "A. B. (Helston)" making an enquiry of the manager, "whether there is a deed from the lord?" I beg to inform him that I hold a deed signed by the lords for 21 years, and expect another deed, in the course of a few days, for a portion of land on which I hold the grant, not yet expired.—THOMAS CARR: Aug. 24.

The conclusion of Mr. Prudden's paper, on the Use of the Blow Pipe, will be given in our next Supplemental Sheet.

**CARNEY WEST.**—A Scrip-holder.—The report and accounts were received and adopted. We believe, up to the present time, only one scrip-holder has signed the cost-book since the last meeting. The rules and regulations of the company are entered in the cost-book, and open to the inspection of any shareholder.

**LARK BATHURST GOLD MINING COMPANY.**—From the great press of matter that has accumulated on our hands, we have been unable to insert a full report of the trial in this company.

**Received.**—A Practical Observer (Rothwell).—A Newcastle Pittman.—"W. B." (Hanwood).—A Shareholder (Adam's-court).—F. S. G. (Birmingham).

## THE MINING JOURNAL

### Railway and Commercial Gazette.

LONDON, AUGUST 26, 1854.

A legislative measure, of vast importance to the trading community, passed in the late session of Parliament—viz., "An Act for the better Regulation of the Traffic on Railways and Canals"—has been just printed, and we believe this Journal is the first to make its provisions known to the public. One of its enactments is, that "This Act (17 and 18 Vic. c. 31) may be cited for all purposes, as 'The Railway and Canal Traffic Act, 1854';" and its interpretation clause, amongst other things, provides that "the word 'traffic' shall include not only passengers and their luggage, and goods, animals, and other things conveyed by any railway company or canal company, or railway and canal company, but also carriages, wagons, trucks, boats, and vehicles of every description, adapted for running or passing on the railway or canal of any such company." The interpretation clause also declares that "the word 'railway' shall include every station or of belonging to such railway used for the purposes of public traffic; and the word 'canal' shall include any navigation whereon tolls are levied by authority of Parliament, and also the wharves and landing places of and belonging to such canal or navigation, and used for the purposes of public traffic." It further provides that "the expression 'railway company,' 'canal company,' or 'railway and canal company,' shall include any person being the owner or lessee of or any contractor working any railway, or canal, or navigation, constructed or carried on under the powers of any Act of Parliament; and that a station, terminus, or wharf shall be deemed to be near another station, terminus, or wharf, when the distance between such stations, termini, or wharves shall not exceed one mile, such stations not being situated within five miles from St. Paul's Church, in London."

Our readers will perceive that these terms are very general, and sufficiently extensive to provide for almost every case, so far as the carriage of goods is concerned; then follows a declaratory enactment (sec. 2), that every such company shall, according to their respective powers, afford all reasonable facilities for receiving, forwarding, and delivering all traffic, and shall not make or give any undue or unreasonable preference in favour of any particular party or description of traffic, and shall, in cases of continuous lines of communication, afford equal advantages at all times to the public. The third section then confers upon companies or persons complaining of anything done or omitted to be done by such company, in violation or contravention of this Act, powers of applying in a summary way, by motion or summons, to the Court of Common Pleas in England, or to any of the superior courts of law in Ireland or Scotland, as the case may be, or to any judge of any such courts; and upon certificate to the Attorney-General of England or Ireland, and the Lord Advocate in Scotland from the Board of Trade, alleging any violation or contravention of this Act, such officer is empowered also to apply in like manner. It then provides that in either of such cases such court or judge shall hear and determine the matter of such complaint, and shall, if deemed fit, direct and prosecute in such mode, by such engineers, barristers, or other persons as shall be deemed advisable, all such enquiries as may be necessary to enable a just judgment to be formed on such complaint. Authority is then given in case it shall appear, that there has been any violation or contravention of the Act to issue an injunction or interdict against continuing the same, and enforcing obedience thereto. All powers incident to such process are then confirmed, and a further authority is given to such court or judge to direct payment by any one or more of such companies of any sum not exceeding for each 200l. per day, to be payable as may be directed either to the party complaining, or into court, or to her Majesty, to abide the ultimate decision, such payments to be enforced in the usual way, with full power to adjudicate as to costs; and authority is also given to the persons to whom the enquiry is confided, to receive evidence and administer an oath.

Powers are then given to the several courts to make regulations for proceeding under the Act, and to direct re-hearings when necessary; and the 6th section provides—"That nothing herein contained shall take away

or diminish any rights, remedies, or privileges of any person or company against any company under the existing law." We have then this very important declaratory enactment—"That every such company, as aforesaid, shall be liable for the loss of, or for injury done to any horses, cattle, or other animals, or to any articles, goods, or things in the receiving, forwarding, or delivering thereof, occasioned by the neglect or default of such company, or its servants, notwithstanding any notice, condition, or declaration made and given by such company contrary thereto, or in any wise limiting such liability." The section then goes on to provide that such company shall not be liable beyond a limited amount in such cases, unless the value be previously declared and extra payment made; and the damages are limited to 50l. for every horse, for cattle 15l. per head, and for sheep or pigs per head 2l. The company are empowered and entitled to charge an extra per centage on the higher declared value, and the proof of value is thrown on the party claiming compensation. It is declared further that no special contract shall be binding unless signed, and that this Act shall not alter or affect the rights, privileges, or liabilities of such company under the Carriers' Act, 11th GEORGE IV., and 1st WILLIAM IV., c. 68, as to the articles of the description mentioned therein.

It will be at once perceived that this measure, simple and short as it is, introduces serious and summary, we hope we may add salutary, changes into the existing law. Men will very naturally enquire why passengers have been so studiously excluded from its enactments, although prominently named in the very commencement of its interpretation clause? Many will probably not readily comprehend any reason for considering the lives of cattle more worthy of special legislative protection than those of human beings. Can it be that railway influence was paramount in Parliament, and that its exercise prevailed against the enactment of similar summary powers to prevent violations of the law in respect of the carriage of passengers?

We can well imagine what grateful intelligence it would be to the British public to learn, that the Board of Trade had introduced a legislative measure, declaring that it was the duty of railway companies to carry their passengers securely, and use all proper means for ensuring their safety; that the word passengers included not only excursionists, but the parliamentary classes, and also engine-drivers, stokers, and other servants of the companies. A summary authority, if conferred by such an Act on the Board of Trade, would, instead of the indecisive and delusive enquiry before a coroner's jury, now, perhaps, enable the ministerial officials to investigate the cause of the late terrific catastrophe at Croydon, and to satisfy the public mind whether or not it was occasioned by the defective management of the electriotelegraph on the Dover Railway. A universal feeling pervades the entire community that some such powers are essential for the protection of human life; the present measure may be but experimental, to test the practical efficiency of the plan proposed, and it is more than probable that the next session will vest, either in the Government or the aggrieved, some more certain and efficient means of detecting misfeasance, and securing redress against defaults of omission, as well as crimes of commission, than they now possess in the contemptible mockery of a coroner's inquest.

If, at the commencement of the present century, any one possessed of greater acumen than his fellow-men had ventured to predict the discoveries that have since taken place, not only in the theory of science, but likewise the practical portions of it, he would have been regarded as a visionary, and the arguments he might have brought to bear on the question, however feasible they may now be considered, would then be thought of merely as the idle dreams of a lunatic; or, if charitably construed, at least the idle hallucinations of a self-deluded and sanguine projector.

Experience has since tangibly proved that nearly all the crude notions which have from time to time been propounded, owing to the improvements which science and practice have applied to them, are now great facts. In support of this proposition, we will merely allude to gas and its appliances, locomotion, marine and terrestrial, by means of steam, and the extended use of electricity, not only as a means of communication, but likewise its other agencies. And, calmly considering, if we look back to some 80 years since, it would appear that of all the so-called wild theories then brought before the public, the only one that has not progressed in that of the science of aerostatics, which, even at this present period, has made no further progress than being able to cater to the vitiated taste of the multitude. It is not our intention here to enter into a disquisition of the merits of the several inventions which from time to time have benefited the world in our day, nor do we mean to discuss in any way the respective benefits they have conferred on society. All this is foreign to our purpose, and would be idle here; the knowledge of the facts are patent to all, and needs no recapitulation from us. One science which has, within the last few years, made more rapid strides than any of its compeers, and probably is less known than the others, we feel called upon to notice—that is, electricity. The utility of this agent in producing light and transmitting information is acknowledged, and though the former appliance of its powers has not yet hitherto been practically brought into operation, on account of extraneous circumstances, there is, however, no doubt but that in a brief period it will be found equally as useful and economical as the other improvements which have been brought into play through the same aid. At present, our remarks are only intended to bear upon electricity as it regards the reduction of metals.

The theory of the formation of mineral veins by electricity has long been a mooted question, on which several of our correspondents have, from time to time, published many highly-interesting papers. Sir HENRY DE LA BECHE, in his *Geological Manual*, mentions how the effects of lightning upon loose sand were beautifully exhibited in the drifted sand hills between the embouchure of the Ir, near Drigg, in Cumberland. The sand there consists of quartzose grains, intermingled with a few grains of hornstone, porphyry, and a few fragments of shells, and rests, at the depth of 29 feet, upon a bed of pebbles; 2 feet beneath these pebbles is a bed of wet sand, containing small pebbles. Upon a single hillock, about 40 feet above the sea, and within an area of 15 yards, three hollow tubes were discovered, about 1½ in. in diameter; they consisted of the matter of the sand, fused and rendered vitreous. These tubes descended to a depth of more than 30 feet, in a vertical manner, branching off towards their descent; the tubes passing through the wet sand were irregular in their passage, yet natural electricity, in spite of these obstacles, was enabled to discharge its current at this distance, and with these natural difficulties to encounter. The experiment of smelting by electricity has often been tried in several countries, and though hitherto, after a great waste of capital, it has invariably resulted in condign failures, yet it is not to be presumed that this always will be the case; indeed, judging from the rapid strides that electricity has made within the last few years, the most sceptical must arrive at the conclusion that the contrary must be inferred, and no one now will presume to prejudice in what manner, or how exercised, its agency will be. With great truth it has been said we live in an age of wonders, and the experience of our time has taught us that this is no idle fiction, but a trite truism; and here we must be allowed to digress. Works erected on the Continent for the reduction of ores, situated as they are for the most part inland, are necessarily obliged in general for their fuel to have recourse to charcoal, and that obtained at a great distance; consequently, the expense of smelting must be much greater than it is where coal is attainable at a cheap rate, and the production of the various metals, owing to the increased expenditure, is necessarily smaller, the poorer ores in many instances not paying for their reduction, hence the cause of the abandonment of many works which, if more favourably situated, would have been able to compete with their more fortunate rivals. Again, it was stated that to construct establishments where reverberatory furnaces were used, to import the fuel from England would be so expensive as positively to entail a considerable loss on the adventurers. How this question can be answered, it is only sufficient to refer to the Alten Works, in Norway, and the Elbe Copper Company, at Hamburg.

In our last Journal we noticed the electrical treatment of ores by M. BACQUEMEL, who has devoted twenty years to the treatment of ores by this method, and according to the results laid by him before the Academy of Sciences in Paris, his experiments have succeeded; in about 24 hours a successful result being arrived at, at a comparatively trifling expense. The details entered into by him our space will not allow us here to dilate upon, we can but simply comment on his invention in general, for so we must be allowed to call it, and to draw the attention of all those connected with metallurgy and mining to it; though it may still have many practical defects, and, probably, the experiments carried out with more regard to scientific purposes than practical uses, yet it cannot, ought not, to be disregarded or passed over *sub silentio*. One of the chief elements required in electricity is sulphuric acid. The King of Naples, when he prohibited the exportation of volcanic sulphur from his dominions, threw down the gauntlet to his greatest consumers, the British Nation, who at that time, if they



had chosen to avail themselves of it, had inexhaustible supplies (which are still available) in their own dominions, for numerous manufacturing purposes, which now are utterly wasted. True, owing to the representations of the British Minister at the Court of the contemptible despot of the Two Sicilies, this decree has been rescinded; but it ill becomes a powerful state like this, more especially when they have their own resources, to allow several important branches of trade to be subject to the caprices of such a despicable monarch.

Several of our mines are rich in sulphur, though poor in copper, and were it not according to the present imperfect mode of smelting, where their ores are used as fluxes, would be almost worthless. If smelting by electricity were brought practically to bear, these at a trifling expense would be reduced through the agency of their own sulphur; our blende mines, which cannot compete with the Germans in the production of zinc, would be again in activity. The uses of zinc plates in an electric battery are so well known to the merest tyro in the art, that it is not necessary to allude to their utility here.

In many countries where the richer ores are now only exported, the poorer might be rendered available, instead of, as is now the case, owing to the expense of transport, freight, &c., being entirely useless to their owners, and accumulating in seemingly worthless burrows year after year. Could this take place, there is no doubt it would cause a great revolution: many existing and vested interests, no doubt, would suffer; the time is passed when these must be considered. The spirit of the age is eminently utilitarian, and private considerations must give way to public weal. A few individuals might suffer, but it would be for the benefit of the community. We could have dilated more at length on this topic, and we intend, at some future period, to further notice the subject. In the meantime, fraught as it is with interest to all concerned in mining and metallurgy, we should have considered we had been wanting in our duty had we not drawn attention to so momentous a question, which, judging from the rapid strides that electricity has already made, it is impossible to foresee what revolutions it has to make and changes to effect in the scientific and practical world.

A case of some novelty has been recently tried in the Sheriff's Court of Airdrie, in Scotland, which excited considerable interest in the immediate locality, and is entitled to particular attention from the proprietors of collieries. It was an action, brought in the Small Debts Court, by a collier of the name of BROADLEY, to recover from his employers, Messrs. MENRY and CUNNINGHAM, coal owners, a sum of money for wages earned by him, which he alleged had been paid to him in contravention of the statute commonly called the Truck Act. The defendants asserted that the wages had been paid in cash; and the question raised for adjudication was, whether or not the payments had been made in conformity with the provisions of the statute.

It appeared that at this colliery the men were paid once a fortnight, and it was admitted that, upon the regular pay-days, they received their wages in the regular current coin of the realm. It had, however, been the practice, between the pay-days, to give uplifts, or advances on account of wages due since the last pay-day; and the pay-office adjoins the store, the property of the defendants, where goods of various descriptions are sold, and from which it is only divided by a partition. There was not any regular communication between the two, and although, in order to pass from one to the other, it was necessary to go out on the road, there is a small window in the partition, which does not open, but through which whatever passes in either place could be seen in the other. It appeared in evidence, that a workman, his wife, or other member of his family, wanting an uplift, was required to go first to the pay-office, to the clerk, who was in the habit of producing a slip of paper, ruled with money columns, asking the party what goods were desired, and marking on the paper the prices, when acquainted with them. This slip was then delivered to the claimant, and taken to the storeman, who added any other goods required, marking the prices, and also those which had not been known to the clerk. The storeman then weighs out or measures the goods required, and sets them apart on the counter, but does not deliver them; and when the prices are added up, and the amount ascertained, he directs the paper to be taken back to the pay office. The pay-clerk then enters the precise amount of the goods into a pass-book, which the workman keeps, and in which advances made to him are also entered, the entries in the pass-book being as cash. The pay-clerk, after this, hands the workman the money, which he takes to the store, and hands to the storeman, who then allows the goods to be removed. The entries in the pass-book are afterwards transferred to the pay-sheets, and at the next regular pay-day are deducted from the workman's wages.

On the part of the claimant, this course of dealing was clearly proved by several witnesses; and eleven witnesses were examined on the part of the employers, whose evidence went to show that the workmen were quite free to take their uplifts to the store, or not, as they pleased. They all spoke of the goods at the store being as good as could be got in the neighborhood, if not better, and that there was not a shop nearer than a mile and a quarter, at which the colliers could deal. It was further asserted, that orders had never been given to the men to take goods from the store, and that the course of dealing was voluntary on their part. To these grounds of defence the following answers were given:—That the question was not whether the men are fairly dealt with at the store, or whether it was for their advantage to go and get goods there—the simple question being, whether, under the statute, the wages had been paid in goods or cash. It was further argued, that if evasion of the Act were intended, it is not to be supposed that it would be attempted by placarding a rule in the store, or by publicly giving direct orders; and that the Act does not require direct proof of interference on the part of the employer, but assumes that the method of evading its provisions may be secret, indirect, and collusive, and declares that proof of such a device, or of such a contrivance, shall be sufficient.

The Sheriff, after taking time to consider the case, finally disposed of it on the 1st instant. He commenced his decision by stating, that he was sensible of the importance it had assumed; that it had been heard at great length, and had been very fully discussed; and while he regretted that an inferior court had been selected, he was pleased to find that the questions which had been raised on the interpretation of this Act of Parliament, and the system on which employers' stores were conducted, might be placed in a form which would permit of the authoritative decision of a superior court being obtained. He then referred to the clauses of the Act 4th WILLIAM IV., which had been passed after an extensive parliamentary enquiry, and relied on those which made every payment of wages, except in the current coin of the realm, illegal, null, and void. He then referred to the decision of HENRY AUSTIN BAUCE, a stipendiary magistrate, of Merthyr, on the prosecution of Messrs. FOTHERGILL, of Aberdare, for an offence under the Truck Act, as given in Mr. TREMSENER's report for 1851. It was there laid down, adopting the language of Mr. Baron PARKER, in *LYDE v. BERNARD*, to be the duties of courts at all times, and put such constructions on statutes as would suppress the mischief, and advance the remedy; and this being a remedial Act, ought to be construed liberally. Applying the law to the facts, if these purchases had been made at the store freely and voluntarily by the men, they were not struck at by the Truck Act; but, on the other hand, if there was any rule or understanding, express or implied, that the money which was handed to them could not be carried away, but must be taken to the store, to pay for the goods, in the manner described, and if the men had not the free control of the money, to spend it when and where they pleased, then there could be no doubt that the payment was not one actually and bona fide made in the coin of the realm, and that it fell within the provisions of the Act. The following facts were deducible from the evidence—that when a workman came to obtain an uplift, it was goods which were in the first instance tendered to him; that such is almost the invariable practice, money being seldom given, and then being generally trilled in amount; that the money given by the pay-clerk, on receiving back the paper, is not given as a payment of wages, but for the special purpose of being handed to the storeman for the goods which were set aside by him for the workman; that, according to the rule and practice of the colliery, enforced by the proprietors through their servants, the pay-clerk and storeman, there is an understanding that the workmen are not at liberty to deal with the money they so receive as their own, but that it should be taken to the store, and the value be deducted on the regular pay-day from the wages. The Sheriff, therefore, came to the conclusion that the wages paid for in this case had not, in the words of the Act, been paid to the claimant actually in the current coin of the realm, and that he was, therefore, entitled to a decree.

It is not our province to discuss the policy of the legislative measure which formed the subject of adjudication in the above case, but on principle we have always been opposed to the truck system, as at variance with the doctrines of free trade, and the natural right of every man to

apply his own earnings as he deemed best for the interests of himself and his family. The decision on the law as it stands, to which we have called attention, appears to us to be a sound one, and likely to be sustained, by whatever test it may be tried. The knowledge of the fact that partial payments of wages, made colourably in the shape of goods, are completely forfeited, will tend far more materially than prosecutions for penalties to discountenance a system which, while it is declared illegal by the Legislature, has been found, in practice, unjust and detrimental to the interests and independence of the people.

Although the pursuit of the precious metals has sometimes been successful, yet often times it has entailed a considerable loss upon those who have neglected the prosecution of the more useful minerals in the delusive search for gold; and the experience of the present day has shown us that much of the capital that has been so recklessly employed might have been better used, had its resources been made available for other purposes. The wealth of England is mainly to be attributed to her iron and coal-fields; and without these we should not have been able to attain the proud pre-eminence we at present occupy in the scale of nations. The importance of this great article of fuel cannot be overrated. Our first iron-works were erected in Sussex and Kent; these were worked with charcoal. The moment the supply of that fuel was exhausted in those two counties, the iron trade decayed there, and necessarily was removed by the force of circumstances to Staffordshire and South Wales, where it has since continued to flourish. In no country has the prosecution of coal been so actively carried on as in the United States. The Legislatures of the various provinces have directed their attention to it; and the importance of the subject has been so recognised, that geologists have been paid by the several states to report upon the coal formation in their districts. The development of the coal region in the Model Republic is one of vital interest to the well-being of the community. The rapid decrease of fuel caused by the steamers plying upon the gigantic rivers of the western hemisphere, together with its consumption in the sugar refineries, and other manufactures, have caused wood for that purpose to rise to an enormous price; and as this becomes more difficult of attainment, the cost inevitably will be considerably higher. The only remedy for this evil will be the development of the coal-fields, so that they may be enabled to afford the necessary fuel at a more economical rate. According to Mr. TAYLOR, the area of the United States coal-field is 133,132 square miles—being 1-17th part of the country. British America possesses 18,000 square miles; while Great Britain only contains 8139 square miles. Looking at these facts, it will be seen the vast superiority the United States has over any other country; and it only requires an adequate development of its resources, not only to render it independent of any foreign supply, but likewise to become a large exporter.

In another column will be found a report from Mr. S. F. GRIFFIN, the superintendent of the Mount Carbon Coal Mining Company in Virginia. This association, although at work for an inconsiderable period, has raised a considerable quantity of coal, which, owing to the heavy droughts prevalent in the summer, has not been sent to market—the river being so shallow as not to allow the barges to float. In order to remedy this inconvenience, it is proposed that a steam-tug should be purchased, so that at all times the produce may be shipped to its destination, and there realised. A meeting of the association is convened for the 31st inst. It is the intention then to propose a further extension of the works, so as to render available the various valuable seams of coal the company are in possession of. As soon as increased facilities for the transport of the produce is provided, there is every anticipation that a fair dividend will be made. Favourable results have already been shown, thereby proving that the adventure is not merely speculative, but one of legitimate enterprise, which only requires capital to be judiciously invested, so as to afford handsome returns to its proprietors.

The open hostilities in which this country is at present engaged with Russia, have rendered it incumbent upon us to seek substitutes for the articles the produce of that empire on which we have been dependent, amongst them for Russian hemp. The demand for paper in this country has also so outgrown our usual sources of supply, that we are forced to seek for new fibrous substance suited for its manufacture, and the New Zealand flax seems to be one well calculated to meet in a great measure these requirements. The *Phormium tenax*, or New Zealand flax, grows in great luxuriance in every part of the islands of that vast district, the flax being contained in the leaf of the plant, covered with green cuticle, which requires to be peeled off, and a viscous, gummy substance removed, the precise nature of which is as yet unascertained, before the fibre can be obtained. This cleansing has been as yet but imperfectly accomplished, although the highly valuable qualities of the plant have been long known to the colonists, and it has been used immemorially by the natives, who have only as yet attempted the operation of hand-scraping the leaves in a green state. It has been for the last twenty years an article of limited commerce; but the difficulty of preparing it for use, from the want of proper means and machinery, had been so great, and the cost so considerable, as to have hitherto rendered it unsaleable at a remunerating price.

Aware of these difficulties, and of its increasing commercial value, the Society of Arts at Wellington, New Zealand, lately proposed a premium of fifty guineas to any person who should furnish them with modes of operation, models, and specifications of machinery, by which the flax might be dressed at a cost not exceeding 5s. per ton, and the Council expressed their opinion, "that the time may not be very far distant when the navy and mercantile marine of Great Britain will be supplied with cordage and sails from the hitherto comparatively useless New Zealand flax." This announcement naturally attracted attention, and accordingly a small hand-revolving machine has been constructed, making 60 revolutions per minute, at each of which revolutions two green leaves are passed through, completely macerated, and forced on to a second part of the machine, which frees the fibre from the gum-resinous substance with which it is coated. This gum has been considered the cause of its brittleness, and has hitherto been only removed by steeping in running water, and by stamping and beating, a very slow, imperfect, and expensive process. The second part of the machine then discharges the macerated leaves into a small stream of water, where the mucilage is washed off by women and children, who merely draw the fibre of each leaf through the hand, and wring it out; it is then hung up to dry under cover. It requires 8 tons of green leaves to produce 1 ton of fibre; but the inventor of the machine has had dried leaves from New Zealand ten feet in length, containing an exceedingly coarse but very strong fibre, suitable for ropes and cordage. There are several varieties of the plant, the fibre in each varying in quality, applicable to the manufacture of fabrics for which silk, cotton, flax, wool, and hemp are used; the fine tow, we are assured, forms a beautiful yarn, and the flax takes colour as well as any textile fibre. Water-power abounds in the colony, and if applied to this machine on a large scale, a supply may be obtained sufficient for every purpose.

The flax has been grown in nurseries in Devonshire, and, we believe, in Wales; if so, we see no reason why its culture may not be extended in these islands. The Devon leaves, we are assured, averaged about 6 feet in length, and although worked by the machine in the dry and not in the green state, each leaf produced 3 ozs. of green fibre. Paper manufactured from this fibre possesses the singular quality of being impervious to water; a sheet of paper folded in the shape of a basin, and filled with water, has been kept suspended for 14 consecutive days, without any appearance of dampness on the exterior; for cartridge-paper, therefore, it would prove invaluable, as well as for preserving polished steel and iron goods. It takes tar as well as European hemp; the relative strength of rope made from the New Zealand fibre and Russian hemp has been tested at the Royal Dockyard, Woolwich, when it was found that a 4-inch rope made of the former was 60 per cent. stronger than 4½-inch made of the latter. Running gear and ship-tackling of cordage made of this invaluable substance has been used in ships trading between London and New Zealand, and highly approved of; and flax-ropes have been made from it for use in the deep coal pits of Lancashire, where they are preferred to those of Russian hemp, when supplies can be obtained.

We have thus produced in one of our new colonies, in an unlimited quantity, an article calculated to supersede the hemp of Manilla, America, and above all, of Russia. This invaluable production of the earth covers many thousand acres of the soil to which it is indigenous; and it is remarkable, that the higher the altitude at which it grows, the shorter the leaf and the finer the fabric it produces. The want of proper machinery for its reduction has hitherto prevented the shipment of it in quantity to Europe; the proposed plan will probably remedy that evil, and in time ensure an ample supply. We have thought it right to direct the attention of commercial men to this very interesting and important national object: the drain for European labour in Australia renders it desirable

that the natives should be employed extensively in this manufacture, the simplicity of the new machinery suits it for being worked by them, and we hope to see the Zealand flax, properly and extensively prepared by the improved process, attain the position in the European markets which its valuable qualities appear so fully to merit.

The promoters of the CWMERNIAN GOLD MINING COMPANY are endeavouring to resuscitate this adventure, to be worked as a lead mine, under a new title, and for that purpose a committee has been appointed. The report just issued by the committee requires the most careful consideration before any of the present shareholders or the public should venture to embark in the undertaking. There is one paragraph respecting the lease which is calculated to cast suspicion upon the whole document. It is stated, "That as to the questions affecting the lease, the committee do not consider them necessary for immediate consideration, or that they ought to interfere with the working of the mine in the manner now proposed; but, if further information is required on this point, the committee will be happy to give it by way of explanation."

Let us call attention to a few of the real facts of the case. There has never been any title given to the shareholders in this mine, and yet the committee has the modesty to ask for a further advance. But there are other questions that will naturally arise. At the time the bargain was made with the promoters, the property was reported to be capable of yielding immense returns in gold, and of course a corresponding price was asked for it, being no less a sum than 16,000*l.*—1000*l.* down, and the remaining 15,000*l.* within a given period, with the option of electing to receive it either in shares or cash. The unfortunate failure is too well known to need any comment from us, and we think the public will pause before they join a concern brought out with such glaring statements as regarded gold, and be now told that it is of the same value for lead, and that the promoters not only will not reduce the amount, but expect the 15,000*l.* to be paid in cash. If the shareholders should agree to the call of 1*l.* proposed to be made, they will find themselves involved in the previous liabilities—the payment to Mr. BAUN of 15,000*l.*, and, in addition, a small item of 700*l.* "to be paid to the promoters." In the event of their failing in any of these conditions, they will be told that they cannot have a title, and must, accordingly, forfeit any amount they have previously paid. We can hardly believe that any body of shareholders would agree to carry on a mining adventure when it is plain to them that they have no legal title to it, and more especially one upon which so much money has already been uselessly expended, and the promoters of which are either ignorant of its properties, or reckless as to its results.

Few publications have appeared more deserving of notice by the scientific and practising engineer, devoted to the management of the steam engine, than the one to which we now direct public attention. CHARLES WYE WILLIAMS has been long known as the founder and managing director of a very extensive establishment—the City of Dublin Steam Packet Company, trading with Liverpool; and his work on the *Combustion of Coal and Prevention of Smoke, chemically and practically considered*, presents to us the results of many years' observation and scientific study, of much anxious enquiry, and long practical experience, on a subject every day becoming of deeper interest to the community. The work is inscribed to Lord PALMERSTON, in respectful acknowledgement of the services conferred upon the public by the Act making the abatement of the smoke nuisance compulsory. Our author assures us that his pages do not contain a single statement which is not either warranted by the highest chemical authorities, or justified by the most unquestionable experimental proof. Fully aware of the alarm which had been expressed by certain manufacturers, that from the nature of their operations it would be impossible to comply with the provisions of the Act 16 and 17 VICT., c. 128, we have his deliberate assertion, that for the last fifteen years he has proved, even in the largest establishments, and in the furnaces of marine boilers, the great nuisance of smoke may be avoided, even with the accompaniment of considerable economy. There is this strong test of the theory with which he seeks to overcome old-established customs and privileges—that many hundreds of furnaces have been constructed in the manufacturing districts on the principles which he suggests, our author having been, in the language of Sir ROBERT KANE, "the first to place this subject in its important and just aspect."

Mr. WILLIAMS does not undertake to show that the smoke from coals can be burned, but this he undertakes to establish—that coals may be burned without smoke; and this distinction, he conceives, involves the main question of economy of fuel. He unhesitatingly declares that the mere enunciating of a plan for consuming smoke is *prima facie* evidence that the inventor has not sufficiently or scientifically considered the subject in its chemical relations. Chemists can understand a plan for the prevention of smoke; but as to its combustion, it is so unscientific, not to say impossible, that the term should be avoided. It should be also remembered that his views on this subject are not now for the first time presented to the public: the early part of the present treatise, in which the chemistry of combustion is considered, appeared in 1840, and is now republished in a condensed form, in connection with the second part, involving its practical application. The absence of any well-founded principle in the construction of steam-boilers was early perceived by him, and also that the part on which most depended appeared least understood, and was least attended to—namely, the boiler, which is generally left to the skill, or want of it, of working boiler-makers and bricklayers. The treatise, consequently, enters very largely into the formation of boilers, with a view to the most perfect generation of steam, and of furnaces, in reference to the creation of flame by the production and consumption of gas. The true principle on which complete combustion of bituminous coal can be ensured in furnaces, is by producing an intimate mixture of the gaseous portions with the atmospheric air; and to the investigation of this important branch of the question considerable space is devoted. The early chapters of the first part treat at length of the constituents of coal, the generation of coal gas, its combinations, and particularly that with atmospheric air. This is followed in subsequent chapters with an elaborate enquiry into the constituents of coal gas and air, and the relative quantities required for their combustion, to which the ascertainment of the quantity of oxygen necessary for the saturation and combustion of the hydrogen and carbon, which form the two constituents of coal gas, is essential; and then with an investigation into the ascertainment of the due proportion of atmospheric air required to supply this quantity of oxygen. A subsequent chapter then considers the quantity of air employed in the combustion of the carbonaceous portions of coal, after the gas has been generated, and the important questions of the mixing and incorporation of air with coal gas, the conditions on which they are effected preparatory to combustion, and their relative currents, embrace the topics which are comprised in the first part of the treatise. These subjects, at once so interesting and so important, occupy the first 38 pages of the publication, and may be considered preface to the second part, which is far more enlarged, and more practical.

The second part consists of a series of elaborate chapters, commencing with a review of the principles on which boilers and furnaces have been and ought to be constructed; deductions are drawn that the introduction of air cannot be safely systematized until the supply of fuel is properly regulated, and the property, or, rather, necessity, of having the fuel on the bars at all times in a uniform state, and thus avoiding any irregular or excessive local admission of air, is fully discussed. The economy of slow combustion as regards the fuel employed, as in the Cornish-boilers, is contrasted with that of quick combustion in reference to the time employed, as in the locomotive boiler. Mr. Williams conceives that the weight of water evaporated in the one case is overrated, that the time employed is underrated in the other, and that the true conclusion seems to be, that the mean between the two false estimates will be found the correct exponent of the relative commercial value of the two operations. A comparison is then made between the practice adopted in locomotive furnaces, which is directly at variance with that in marine and land boilers; while in the former, in which, from the combustion of coke, gaseous operations do not take place, the chamber called the fire-box is deep, wide, and short; in the latter, using bituminous coal, where, from chemical reasons, large capacity in the chamber is absolutely essential, it is, nevertheless, usually narrow, shallow, and long. Thus, the former is deficient in capacity, where it is essential, while the latter has ample, where it is not absolutely necessary. The proper modes of introducing air to the coke or fixed carbon of the coal, and also into the gaseous portions, are carefully examined and illustrated, and the self-acting or other apparatus for regulating the supply are fully explained and reviewed. Very elaborate observations are devoted to the various furnace arrangements in use, to the principles ap-



plied, and to the improvements introduced, which are followed by an essay on flame, the temperature required for its production and continuance, its influences, agencies, and effects. The circulation of water in reference to intestinal currents and motion, the effects of ascending and descending currents, their direction, the intermittent action of steam, are all subjects of special enquiry and illustration, while the arrangement of flues, the treatment of heated air, the theory of draughts, and the durability of plates, are also severally discussed, with clearness and ability. It will be thus observed that the treatise furnishes a commentary upon every phase of this very extensive subject, and we may safely venture an opinion that any person desirous of becoming a master of it, will find means of attaining that object in the present publication.

The last chapter is devoted to the subject of smoke, and when so much has been said and written on the subject of the combustion and consumption of smoke, it becomes necessary to enquire, *What is smoke?* When we see a dark yellow vapour rising from heated coal, as at the mouth of a retort, or from a furnace, or domestic fire after fresh coal has been thrown on, this colour is not occasioned by the presence of carbon, but is caused by the sulphur, tar, or other earthy impurities in the coal. All these are subsequently separated in the purifying process, the carbonated hydrogen remaining transparent, so minute are the atoms of carbon diffused in it. We are in the habit of mistaking smoke for gas, and assuming that it can be burnt; and there is another very general error, that a cloudy volume of smoke is formed of carbonaceous matter. When we separate sufficiently, to analyse the combustible constituents of coal, the products are—1. Steam, highly rarified, invisible, incombustible.—2. Carbonic acid, invisible and incombustible.—3. Carbonic oxide, invisible, but combustible.—4. Smoke, visible, partly combustible, and partly incombustible. Separating, again, the gaseous combinations into their combustible constituents, we have oxygen, hydrogen, and carbon, as the producers and supporters of flame, while the smoke is found to be formed of such portions of the hydrogen and carbon of the coal gas as have not been supplied or combined with oxygen, and consequently have not been converted into steam or carbonic acid. The hydrogen which so passes away is transparent and invisible, but the carbon on being separated from it loses its gaseous character, and returns to its natural and elementary state of a black pulverulent finely divided body, visible; and this it is which gives the dark colour to smoke. It is, therefore, palpably erroneous and irreconcilable with the operations of nature to suppose that smoke once formed can be consumed in the furnace in which it is generated, as its formation arises from the failure of some of the processes preparatory to combustion, or the absence of some one of the conditions essential to the production of light and heat, and which smoke, if gas and air were applied in their proper proportions, would not exist. Our space will not permit us to pursue this interesting enquiry further. Our readers, however, before them sufficient materials to satisfy them of the importance of the treatise on which this publication treats, and we can assure them that the treatise will well repay the most attentive study. The text of the work is illustrated by a variety of diagrams, and being presented to the public in a convenient and inexpensive form, is calculated and entitled to become a manual of useful, indeed essential, information to the practical as well as the scientific mechanical engineer.

There are many, we are aware, who are of opinion that great injustice has been done by some of our most experienced Cornish mining captains who have reported upon and condemned the "mineral properties" of several Jamaica mining companies. While, however, the opinions of Mr. JERU HITCHINS, Mr. HENWOOD, of Capt. MAYNARD, of Capt. CLEMES, and others, have been carried at, and have by some parties been ridiculed as the statements of men entirely ignorant of the science of geology, it cannot be denied that their evidence was given without prejudice; and that, notwithstanding there have been no less than seven companies formed within the last three years, there has been in no single instance a discovery made which has proved the fallacy of the opinions advanced. Dr. DECK, and other eminent professors, have, it is true, expressed their confidence in the mineral properties of some of the districts, and even of those which are reported to have been explored and condemned by Mr. HITCHINS; but it does not follow, even if the latter be in error—which it is rather too much to assume—that his survey was made without a due regard to the subject upon which he was called to give an opinion; and it is not, moreover, very likely that Mr. HITCHINS, whose reputation is so highly estimated in the mining world, would venture an opinion that he did not conscientiously believe to be sustainable by facts. We sincerely hope, for the sake of the colony, and for those who have a vast amount of capital embarked in these undertakings, that mining operations in Jamaica may yet be successful; but, at the same time, it is our duty to protect, as far as possible, the character and reputation of our own countrymen. Their opinions have been given in a fair and impartial spirit, and are, therefore, entitled to consideration and respect; however, much they may be opposed to the interest of a certain class of speculative capitalists, or differ from the views of colonial or tropical geologists. Mr. LOWRY, a good authority, states it to be his thorough conviction, that by-and-bye some good mines will be developed in Jamaica, and we sincerely hope that this prediction may be realised; but we still say, let the watch-word be "caution."

**DREW'S PATENT TRITURATOR AND AMALGAMATING MACHINE.**—A working model of this crushing, washing, and amalgamating machine is now at work at the Windsor Iron-Works, City-road, and beginning to attract some attention amongst parties interested in mining undertakings. The machine was originally (as a circular from the patentee announced) intended for the purpose of extracting from quartz, gossan, &c., gold only, but the gold fever having nearly, if not altogether, abated, and the machine having been found to answer in crushing and washing ores for lead, tin, &c., the proprietors have determined to give their attention more particularly to that branch of mining operations. We think they have done well so to determine; although, as far as we know, the trials which have taken place for gold have been satisfactory, and we are extremely glad to find that persons wishing to try the produce of their mines for gold, silver-lead, or tin, can do so, and depend upon the result being a true one.

**THE ELECTRIC GAS.**—We have received a communication from Paris, stating that the works are progressing most favourably, under the personal inspection of Mr. Shepard, and in a short time this valuable invention will be fairly tested on a large scale at the Hotel des Invalides. The fittings-up are said to be on the most extensive and magnificent scale; its recommendation for cheapness has been proved at the Napoleon Docks, the works being carried on night and day, and the cost being under one half-penny per man.

**NEW LIGHT.**—By a recent invention, people living in towns where no coal-gas company is, or can be profitably formed, may now obtain the luxury of a brilliant home-made gas light, at a cost cheaper than that of the ordinary oil or fluid. This apparatus is now in use in various houses in the neighbourhoods of Boston and New York, and is designed for private dwelling-houses, churches, hotels, stores, and factories: it can be made for one light or a thousand, and for a common dwelling-house occupies only about 2 ft. space, and can be placed on a shelf in any convenient closet: it generates gas by mixing atmospheric air with the vapour of benzole (a fluid made from coal tar), producing a superior light to that of coal-gas, being clearer and softer; the flame being of fuller volume, and burning with greater steadiness, while the expense is about the same as that of coal-gas. The apparatus generates no more gas than is immediately consumed, and requires for the purpose only the heat of one of the burners used as a light, so that the whole cost of the gas is that of the apparatus and the benzole. The generator contains an evaporator, exposing a large surface of benzole to the action of the air, as the latter is forced through both apparatuses by the pump and weight; and the thus evaporated benzole, combining with the air, produces a gas of the highest quality for illumination. The apparatus is so perfectly simple that it may be managed by the doleful domestic, only requiring the weight to be wound up before use, and the generator to be filled up twice a month, or not so often if all the lights are not in use. This beautiful invention has been patented by Mr. C. P. Drake, a practical electrician of Boston (U. S.), and must be regarded as one of the most utilitarian improvements of the time.

**INDURATED STONE.**—We are glad to find that a company has been formed to fully carry out the advantages of Mr. W. Hutcheon's patent for rendering every description of soft sand and other porous stone, plaster of Paris, and all absorbent materials, hard and impervious to moisture. Our readers are aware that this patent has been for some time worked on a limited scale in the neighbourhood of Tunbridge Wells; and amongst the many advantages it possesses is that houses, partly or wholly constructed with indurated stone, or bricks, exclude damp, harbour no vermin, and preserve the timber work from decay. For hydraulic purposes it will effectually resist the action of sea water; and the wear from washing of shingle against sea walls, and all decorated and sculptured work executed under this patent defies the ravages of time, and are impervious to atmospheric deposit, and all other destructive agents—the surfaces being compact and washable, without injurious results. Sir Roderick Murchison speaks in the highest terms of the invention, and states that by the method of indurating the soft sandstone of the neighbourhood of Tunbridge Wells, which is so easily worked, it is rendered as durable as the hardest rock, and quite impervious to moisture, and adds that every sort of decoration can be executed out at a slight expense with great rapidity; and in a few hours the material can be rendered an indestructible rock, with edges that can only be destroyed by violence, and never can be effected by water. After the testimony of such an eminent geologist as Sir Roderick Murchison little remains to be said of this valuable discovery. The proposed company is divided into 50,000 shares, of 1s. each—10s. to be paid on complete registration, and the remain 10s. on three months' notice.

## THE IRON AND METAL TRADES OF SOUTH STAFFORDSHIRE.

[FROM OUR CORRESPONDENT IN BIRMINGHAM.]

**August 25.**—There is little variation to report this week in connection with the mining interest of the district. The orders recently received have not been numerous, but there are still on the books sufficient for the purposes of sound and healthy trade. The demand for the American market by the last arrivals have not been so extensive as were expected, and the same will apply to the general continental demand. For the home market, the demand has also been comparatively limited, and although no reduction of price has been declared, circulars have been issued in some trades, which would seem to indicate that iron can be purchased on easier terms than at the commencement of the quarter. In July, the nailmakers, in consequence of the decision at Stewpony, issued circulars, announcing the advance, and requiring a corresponding rise on nails: Within the last few days, however, circulars have been issued, announcing that they can now be purchased at 10s. per ton less, from which it is not unreasonably inferred that they have obtained a reduction upon the raw material. Some manufacturers of hollow iron wares have likewise made similar reductions, and this is also viewed as the result of a giving way on the part of some houses. The orders on the books of the large manufacturers are, however, sufficiently extensive to carry them through the next two months, and they are in a condition to uphold the quotations of last quarter-day, if they may deem it advisable to do so.

The demand for ironstone continues, and the difficulty of obtaining it enables the holders to obtain a good price. Considerable efforts have been made to introduce pig-iron from the neighbourhood of Newcastle, but it is said to be of an inferior quality, and only used when better cannot be obtained. This description of iron is reported rather easier, and if not sold at a reduction from my last quotations, there is certainly no disposition to advance. There is, on the whole, rather a downward tendency in all descriptions of iron, and whether true or otherwise, the general impression amongst manufacturers is that the market will become easier, and few are, consequently, disposed to order, except for immediate use.

In the Copper Market there has not been any change. The demand continues about the average, and the same will apply to tin. Having noticed in a former letter the introduction of Mr. Phillips's liquid flux, for the purification of metals, I may further add that since then it has been subjected to further tests in this locality, and with satisfactory results. Its effects on copper and brass, when applied in a moulten state, either in or out of the furnace, is said to be the expulsion of the dross in a more perfect manner than could be attained by the present mode of fluxing. The metal is considered, under this new process, to be closer in texture, the castings rendered more solid and tough, and better adapted for turning or boring. For wire, the application of the flux has also been beneficial, and the greater purity imparted to ingot metal enhances its value.

The general trade of the town is by no means so brisk as it was last quarter. A few days ago the unfavourable state of the weather, and apprehensions relative to the crops, had a depressing influence, from which the trade has not recovered; these fears, however, may now be said to be removed by the return of favourable harvest weather. The reports to-day at the corn market were much more satisfactory than last week, and we have now little to apprehend from any deficiency in that quarter. Apart, however, from this cause, others have been in operation to restrict commercial operations. There can be no doubt the war has contributed very considerably to produce a lull, which would have been much more seriously felt in this district were it not that it contributes in no small degree to the interest of the great staple trade of the district.

For marine boilers and warlike implements the demand is still great. The principal gun manufacturers have recently received orders for the immediate manufacture of several thousand guns; and still larger orders would have been given if the manufacturers had been in a condition to accept them. Military gun making is, however, a peculiar branch in itself; and during the long peace the hands were allowed to die off without being replaced; and there is, therefore, a scarcity in the country of men skilled in that branch. Manufacturers, however, are availing themselves of as many of the "birds" as can render themselves useful, and with them and the increased powers of machinery, there can be no doubt the demand will be met.

In the Jewellery and other Fancy Trades, there is very little demand, and the hands are by no means well employed. Amongst this class may be included the steel-pen makers. The orders on the books are unusually small, and at some of the largest works the men are on short time. The wonder, however, is not that they should be occasionally only partially employed, but that markets can be obtained for a quarter of the number of pens annually produced in Birmingham. There is scarcely any article to which machinery has been so successfully applied as the steel-pen, and the millions of these little indispensables sent from this town would seem to be sufficient for the supply of another world of ordinary size and population. We have enjoyed up to the present time the almost exclusive possession of this trade, but the French and Americans are making considerable efforts to introduce it into their respective countries. It will, however, require much time and experience before they can attain to that perfection in the production of the steel-pen for which the great houses in this town have become so celebrated.

## IRON AND COAL TRADES OF YORKSHIRE AND DERBYSHIRE.

[FROM OUR CORRESPONDENT IN CHESTERFIELD.]

**Aug. 25.**—There appears to be no diminution of activity in the Iron Trade, as many makers have orders that will require several months for completion; there is still difficulty in obtaining very early delivery, and higher prices than the nominal ones are in some cases given to ensure quickness of execution. There are heavy orders for hoops, which cannot longer be withheld, in consequence of the advance of the shipping season; and, on the whole, the tone of the market indicates firmness, with the exception of rails, which are somewhat easier to purchase. The confidence inspired by the favourable reports of the harvest from all parts of the country, and by the reduction in the rate of discount by discount houses, is telling favourably upon all branches of industry, and but for the disastrous revelations disclosed in reference to the American railway system, there is nothing to occasion apprehension for the future.

The Sheffield Trade evinces great prosperity; a new and important branch of industry having been established on an extensive scale—the manufacture of ironwork for railways—which will consume a considerable quantity of the malleable iron of the district.

The manufacturers of edge tools, files, and springs, are all very fully employed; and, in consequence of the increased value of all descriptions of Swedish and Russian iron, the manufacturers of Sheffield must realise enhanced prices. The cheapening of all materials employed in the Sheffield trades for several months past, and more economical modes of manufacture which have been introduced, have led to a constant decline of prices; but with diminished make in Sweden, arising from scarcity of water to work the forges, absence of imports from Russia, and a demand for these iron for America, higher prices must result.

The Scotch pig-iron market offers little subject for remark, as prices are but little changed. Derbyshire pigs continue to be in much request, and realise high prices.

There has not been any material change in the Coal Market since our last. The supplies have been considerably increased in many places, and stocks are rapidly accumulating on the pit banks. Prices, however, have been steady for the season of the year, and where there has been any fluctuation, the rates have had a downward tendency.

We have had very favourable reports here during the week of the value of the recently-discovered ironstone in Northamptonshire. It would appear, from the experiments made by Mr. Bullin, of Northampton, that the ore can be most advantageously smelted in that county (Northamptonshire), and converted into iron of an excellent quality. Two huge furnaces are in a forward state, and one, if not both, will probably be in operation in October next. We are in possession of further particulars, which we purpose giving next week.

The Midland Wagon Company held a meeting at Rotherham, on Friday last, at which, we are informed, a dividend of 7½ per cent. was declared. We are in receipt of communications from the Derbyshire lead mining districts, which give a very favourable view of the progress of the different adventures. The Midland Mine, at Ashover, which was recently in a languishing state, is looking up, and shares are firmer in the local market than they were.

We hear very favourable accounts of the prospects of the mining company about to commence operations at Bonsall Leys, near Matlock, and

parties who are known to embark in mining speculations are not slow in taking up shares.

It is our painful duty to close this week's communication with the brief details of one of those fatal and terrific colliery explosions which have often shrouded the locality of "Bleak Barnsley" in a melancholy gloom. On Tuesday morning, a little after six o'clock, an explosion of fire-damp took place at Lund Hill Colliery, which is situated in a valley between Wombwell and Hemingfield, about five miles from Barnsley. The colliery is the property of Messrs. William Taylor and Co., and has not yet come into working operation. The explosion is supposed to have been caused by an accumulation of water in the drifts communicating with the different shafts, through the engine having had to stand while undergoing some alterations. Four persons have been killed, and two others are so badly injured that no hopes are entertained of their recovery. T. Badger, Esq., held an inquest on the bodies to-day, at which Mr. Morton, the Government Inspector, was present; and, after a lengthy enquiry, during which the manager, Mr. Alexander M'Ewen, C.E., of Manchester, was examined, the jury returned the following verdict:—

"The unanimous opinion of the jury is, that the five men have come to their deaths entirely from accident, and we acquit the proprietors of the colliery of any blame or culpability; but we are of opinion that John Jelson, the contractor, ought to have men in whom he can place more confidence than those he has employed, and that he ought to have used the means which are placed at his disposal for ventilation by the proprietors. If, in the event, Noah Hickey, had used more caution, the accident might not have occurred."

## STOCK, MINING, AND RAILWAY SHARES IN IRELAND.

[FROM OUR CORRESPONDENT IN DUBLIN.]

I have but to repeat the oft-told tale, business, if I am to judge by the operations of the market and the daily lists, would appear to have been deferred until the harvest is got in, or the proceedings of a warlike character with the Emperor of all the Russias brought to a close. No longer are your quotations a guide for us, as yesterday only business was done at 1 per cent. below your prices. I forward you our weekly list, by which you will be enabled to judge for yourself; while a large portion of our small body have emigrated, or rather taken their departure for the "lakes" or the "bay," which I presume would not be the case if that business was to be done here, as I believe our members have as much love for the "lakes" as the "fishes." The numerous blanks in the list furnished will at once show you that little is doing in the way of speculation; and with regard to transactions in the public funds, many parties are allowing their surplus capital to accumulate in their bankers' hands, being fearful that present prices will not be maintained. This at least is the opinion here, and you have it for so much as it is worth.

It is irksome to dwell continually on one topic, and as I have said so much about the Bantons Barytes Company and the concoctors, I am not again to be led into further discussion, with the object designedly on the part of your correspondents of bringing the concern into notice. I think you have done them fair justice, while you have devoted more than a fair space to the comments and remarks on either side; however, it is only in accordance with your usage, *audi alteram partem*. The remarks made by your correspondent, in last week's Journal, are very wide the mark; the rules introduced, several of which must be seen are highly objectionable; while your correspondent clearly shows that he is too much interested to throw a chance away, and thus makes your columns a medium of advertisement. The "Holder of 250 Shares," I think, is not unknown to me; and I defy him, or any other, to deny the truth of any assertion I have put forward. He says—"The Barytes Company of Ireland are prosecuting the works with great energy, and many men are employed." I do not doubt the correctness of his assertion, as applied to operations at the present moment; but will he contend that I was not right when I said "the Barytes works are suspended?" He talks about it being somewhat singular that I have said but little of the value or the valuelessness of the mine; but will he answer any one of the points put forward in my last communication? I say, No; because he cannot, or dare not. This may appear an Irish mode of meeting a question, but I think it is only fair to ask your correspondent to reply to my queries ere he advances any of his own. As to the mine, I know quite enough, but it is not necessary for me, as your reporter, to go to the expense of visiting a mine or quarry in which I am in no way interested. It is possible, if I can find time, I shall get a tourist ticket, and visit the "lakes" and the "barytes," in which case I will give you the result of my personal inspection. Your correspondent states he could have obtained, and in fact sold, his shares at 14 per share, whereby he was in a position to realise 2500; but, forsooth, he is better pleased to receive an additional interest, as he terms it, of 25 per cent. in the new company, while it is, in fact, the same under another title. He does not say one word as to the 60000 purchase money, but is content to forego the advantage he had derived from selling his shares, because he has so high an opinion of the undertaking. Well for him thus to put up with a loss of 75 per cent. I would ask, is it that he does so because he thinks the conduct of the parties honest, and he should thus sacrifice the bonus? or is he, as I suspect, "one of the few?" I have now done with Barytes; the concern, the system of connection, and management, are now before your readers, and they must judge for themselves. I may, however, add, by way of postscript, that the money has not been returned to those who paid their deposits some four or five months since; but it is said the solicitors, Messrs. Vallance and Vallance, will take upon themselves, being duly paid, to wind up at their leisure. I only wish we had the concoctors here; we would teach them what is Irish honesty and honest feeling.

The reports of the Kenmare Mining Company, to which I adverted last week, it appears, has called forth a letter from their late agent; and although it may be good in itself, so far as it goes, with respect to the underground workings, yet I must confess it does not appear to me to meet the charges in the report, which are too serious to be allowed to pass unnoticed, as affecting the capacity of their agent. I yet trust that Capt. William Thomas will more specifically deny the allegations put forward, and which he is bound, in common justice to himself, to do, as such charges the directors distinctly state justified them in his dismissal. Who, then, can repose confidence in him as a practical man after such a statement, which most certainly I could not, if that it is "founded on facts," as our novelists would say, but which, like their volumes, I think will be found to embrace more fiction than fact. It is, I repeat, a duty he owes to himself. Capt. Thomas may feel himself confident as to his duties having been properly observed, and with the required ability; but he is now before the public, and ere that he can expect public confidence to be reposed in him, he must needs remove the impression created by the report of the directors. Coosheen, which holds its meeting this week, was formerly (if I am rightly informed) under the management of this same Capt. Thomas, and from the reports made by Capt. Skimming on this and the Kenmare property, it would appear that Capt. Thomas is incompetent. Capt. Skimming has, doubtless, achieved one object in view; he has got a place, and, as it is said that a "new broom sweeps clean," he, doubtless, will be held in the estimation of the directors until sales of ore take place. By-the-by, how is the monthly cost to be met?

Again, we have the General Mining Company for Ireland, on which I offered some brief remarks last week. I have not spoken with a party, as holders of shares, but that the only enquiry is, Is there a market? They would readily pay a call, but they see, with the concern under the control of the chairman and his plant tool, the secretary, nothing will be done but convening a special meeting of the proprietors to "wind up." I do most sincerely regret that this instance of an Irish company should be afforded as being parallel with some, if not all, of your English schemes in Irish mines.

Turning from these sad defaults, it is gratifying to refer to the results, or profitable returns, of the Wicklow Copper Mining Company, who have announced the dividend for the past half-year at the rate of 32½ per cent. This in itself is no small trifle, and I think our *supra* ores, of which so little appears to be known by the writer of the article on this subject in your columns, are far more important than is generally supposed. This is a pure Irish company.

As regards mines generally, including those of the Mining Company of Ireland and the Wicklow Mines, I may observe that at Carbery West the prospects continue "constant" and unalterable, like unto the Chief "Constant" lode, there being neither increase nor decrease in the quantity of ores raising. The cost is being kept down, and will in the end be placed to the account of "plant." Mizen Head, Dhurode, Browhead, Crookhaven, Kilbarry, Irish Consols, &c., all of which may be classed in the one category, are, I am happy to say, not likely to alter for the worse; and, indeed, I believe I may say ditto repeated for South Cork, Ballydehob; in fact, I do not see a chance. The Dumananny gold discovery has resulted in yellow specs of mundic, so that this cannot be hailed as an encouraging spec. The wonderful discovery of silver-lead by "St



Peter" at Clonakilty, owing to the dense spray from the sea against the cliffs, has been completely obliterated. The surges from Roaring Water are not so plentiful at the mine as they were a short time ago in London, and the latest discovery of the precious metal was of such an extremely fine quality that it could not be seen with the naked eye. At East Anagh, in the north of Kerry, the lode may be said to be "hide-bound," and the company is obliged to wind up.

At Ballymoneen Mine (sulphur), county Wicklow, contiguous to Ballygahan and Ballymurtagh, a deep edit is in course of driving, which will take the lode at 25 fms. A new engine-shaft has also been commenced, which is calculated to take the lode at the 60. The lode in the shallow edit, which was only 2 ft. big, was found to have increased in the 10 fms. level to 15 ft., with an admixture of sulphur stuff and copper ore—the latter, however, not worth saving. It is expected that the shaft will be down 30 fms. in the course of the next 12 months, and an engine will at once be erected. At Ballygoness, Capt. Hooper, of Cornwall, has, I understand, been appointed as resident agent in the room of Capt. Griffiths. Some 16 or 20 tons of lead ore are now at surface, and until the rails underground are laid down the workings will be comparatively confined. Some 30 or 40 tons of ore have been sold, and as soon as the railway is laid down, and other necessary works completed, little doubt is entertained but that the concern will fully meet the expectations of the adventurers. At the Tassan Mine (lead), in county Monaghan, the engine went to work last week. They have already raised 100 tons of lead in course of sinking 20 fms., the lode in the shaft being at the present moment worth 45l. per ton, and returns may be expected immediately. The engine is a 25-in. cylinder, and is employed for crushing, winding, and pumping. The set is extensive, and there are several lodes already discovered: the lode at present worked upon is described as being large, with about 3 ft. of ore ground. At Silverdale Mine, in the same county, and contiguous to the Tassan Mine, a lode has been recently discovered, with excellent stones of lead and gossan within 9 ft. of the surface. An edit is being driven to take the lode, which it is expected it will intersect in the course of a month or six weeks.

In the proceedings of the General Mining Company for Ireland, reported in last week's Journal, with the names of directors, you will find that of Mr. Walker as one of the successful candidates—that gentleman residing in the vicinity of the mines, and agent, if I mistake not, to Lord Dunally, one of the lords of the mineral property possessed by the company. This gentleman not, however, liking his coadjutors with whom he was called on to act, honourably at once resigned his office, and accordingly a Mr. Evans, who was also a candidate, has been elected by the board to fill such vacancy. This is sufficient to justify the remarks which are rife here—(Mr. Evans) being the nominee of the chairman, and who, I am informed, actually canvassed for him. Methinks a few weeks will tell a tale.

In advertizing to coal and iron in this country, I find, from an advertisement in your columns of last week, that certain mineral property in the neighbourhood of Sligo is put into the market. I am, I must confess, somewhat in doubt as to the "coal-field," although there can be no question as to the quality and abundance of ironstone; but it would be well for capitalists first to ascertain the existence and quantity of the former. If I mistake not, some 30,000, or 40,000, has been lately put out in this locality without first having ascertained the existence of fuel. However, there is a strong effort being made to introduce turf as the combustible; but I fear they will not be able to obtain it so as to carry the "burthen," or otherwise too compact to admit the blast having effect. The coal is undoubtedly a sweet coal, and well adapted for the smelting of iron, but the thickness of the seam rarely exceeds 2 ft.; and although it would be of the first importance for the country that iron-works were in operation, yet it must be admitted that caution must be exercised, and that reports of geologists and engineers of mines must not be relied upon with too much confidence. The site named is five miles distant from Lough Allen, and within two miles of the Arigna Works, in Roscommon. Shares in the Grand Canal Company have been looking up for the past few weeks, and have steadily advanced 5l. per share, or from 35l. to 40l. The Dublin and Wicklow Railway, on the other hand, continues to decline, much to the surprise of those who invested their money a few weeks back. The traffic is fully equal to the most sanguine expectations of the promoters of the company; indeed, it is said that a number of old carriages, heretofore used on the atmospheric and other lines, have been pressed into the service of the company. The only cause to be assigned for the depreciation in price, being from 6l. 15s. to 5l. 17s. 6d., must be attributed to many of the original allottees of shares being unable to pay the calls, and hence throwing them upon the market.

The prices of Government Securities are as follows:—3 per Cents., 93½ for cash, 93 for account; 3½ per Cents., 93½ for cash, 93 for account; and Bank Stock, 219. In Mining Shares, business has been done in General Mining Company for Ireland at 2½; Mining Company of Ireland, 16½; and Wicklow, 51½.

#### IMPORTANT IMPROVEMENT IN THE MANUFACTURE OF IRON AND OTHER METALS BY THE INTRODUCTION OF A LIQUID PURIFIER.

Our readers will remember some notices which appeared in our Journal of the 12th inst., relating to the above extraordinary fact. We have much pleasure in stating that our remarks have called forth great attention to this new principle, and that the originator, Mr. B. L. Phillips, of Coburg-place, Upper Kennington-lane, has received numerous communications from various iron foundries, and practical operators in metals in all parts of the kingdom, making enquiries respecting its application, cost, &c., all of which we have reason to know have been answered satisfactorily, and reference given to the firms where the experiments were made, as described in our Journal of the 12th inst. Our present purpose is to show its equal utility and benefit as applied to copper, brass, &c.; and here again we have much pleasure in being able to announce, on good authority, that the experiments have been effected at some of the largest establishments in Birmingham, where Mr. Phillips has been received, with some few exceptions, as a benefactor to the trade, consequently to the public. He has had, of course, to encounter the prejudices of both master and man, besides having to combat against the long-existing notion entertained both by scientific and practical individuals of the impossibility of introducing a liquid into metals, or other solid bodies in a liquid state.

The advantages derivable from this new principle (the liquid purifier) are being fast appreciated. Among other establishments where the indefatigable discoverer has been, may be noticed the paper-mills belonging to the highest civic authority of the borough of Birmingham, who received him with his usual kindness and urbanity; and having listened attentively to Mr. Phillips's statement of its effects on metals, and of what he proposed doing at the paper-mills, the worthy Mayor at once went with him to the mills, and whilst the machine was in operation, Mr. Phillips introduced a small quantity of the liquid: in about a minute a piece of paper was produced of decidedly different texture to the bulk then making. This is, of course, not to be considered a fair test or experiment, but merely as showing the extraordinary power of the liquid purifier, whether applied to hard or soft substances. Instances of its effect on other articles can be equally well authenticated; but enough is here shown to prove that various sources of our national prosperity are likely to derive advantage from its introduction into the factories at Manchester and elsewhere, and to which, we understand, it is Mr. Phillips's purpose to turn his attention as soon as he has firmly fixed the practical application of it in the metal trade generally.

As respects copper, brass, &c., we beg now to state that on the introduction of the liquid purifier into the crucible or melting pot (either in or out of the furnace), whilst the metal is in the proper melted state, it brings up almost immediately all the dross and impurities, which the present imperfect mode of fluxing is incapable of doing; this, of course, renders the metal better, and the castings made, whether into ingot or work, are superior, being stronger, tougher, and more solid, consequently better for boring and turning. Its practical working and economical properties have been fully proved, and it may be stated that lighter or thinner castings will be equally strong, and much neater than those in present use; that wire and other things requiring increased strength, in proportion to size, may be made and used thinner than at present; and that ingot metal, being more pure, will be increased in value, and, consequently, will go further in manufacture. This has been frequently tested, particularly as regards the commonest sort of stuff, such as brass filings, which by the new purifier is rendered a good metal, and fit for use again; and although it loses considerably in weight by the new process as compared with the old, yet, on being valued for its metallic properties, after being cast into ingots by the old and new process, the advantage is always found to be on the side of the latter, besides having a good metal to work upon; so that if

the manufacturer desires to lower in quality, he can do so to suit his purpose and work. This advantage alone, independent of every other, must be of great benefit to the manufacturer and to the public, producing profit to the one and economy to the other.

Our remarks being rather long this week, we must, for the present, conclude here, but shall shortly revert to the subject, which we are sure must be interesting to the general reader, as well as to the metal trade and others. Before we close, however, we have a word on the matter for our official authorities, whose notice we beg to call to this "astonishing fact," and as the great national undertaking, the building of the Westminster iron bridge, is in contemplation, we direct the attention of the proper authorities to this announcement on public grounds, requesting them, before they proceed, to have some iron made, and tested on this new principle, and if found to increase strength, &c., to adopt it, in which case we are assured by Mr. Phillips that he would be ready to do it, and that at a small charge per ton.

#### NEW LAW OF PATENTS IN BELGIUM.

The following is a brief abstract of the New Belgian Law of Patents, for which we are indebted to our old correspondent, Mr. Campin, the patent agent. This law is now in full operation.

1. Leopold, King of the Belgians, &c.
- Art. 1.—Patents to be granted, of invention, improvement, and of importation, for any discovery or improvement capable of being put in operation as an object of industry or commerce.
- 2.—Patents to be granted, upon the proper application being made, at the risk of the applicant, and without their validity being guaranteed in any way, and without prejudice to the just rights of third parties.
- 3.—Patents to be of the duration of 20 years, except in the case specified by Art. 14. Patent rights to commence the day on which the application for the patent is filed. A yearly progressive duty is to be paid on each patent—viz.: First year, 10 fr.; second year, 20 fr.; third year, 30 fr.; and so on, increasing 10 fr. each year. Patents for an improvement upon a former patent, when delivered to the proprietor (*titulaire*) of the principal patent, not to be subject to the above tax.
- 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.—Patents to confer the exclusive property in the invention, and to be enforced by courts of law. Courts of law empowered to confiscate piracies for the profit of the patentee. The Court of first instance (similar to our County Court) to authorize "experts" to inspect an alleged infringer's premises, to make an inventory of piracies, and to regulate (*pendente lite*) the custody of the same, &c. The "experts" (scientific or practical referees) to be named by the court, after consultation with the parties. Regulations as to further proceedings to obtain final cancellation of piracies, &c.
- 14.—The author of a discovery, already patented in a foreign country, may obtain, in his own name, or in the name of his legalised nominee (*agents d'ordre*), a patent of importation in Belgium; but the duration of such Belgian patent shall not exceed that of the patent before granted in the foreign country, and in no case endure for more than 20 years.
- 15, 16.—Patents for improvement of a former patent shall expire at the same time with the principal patent. If the possessor of the patent of improvement, and of the principal patent, be the same, then the principal patentee is declared the user of the improvement, and the other is declared the user of the principal patent, unless both agree. Patents of improvement, as well as patents of importation and invention, to confer similar legal rights.
- 17.—Persons desirous of obtaining a patent to deposit, on application for such patent, the specification and drawings (if any) at the proper office; but no application will be accepted till the receipt for the first year's tax is produced. A certificate of the filing of the application is delivered, which attests the legal date of the invention.
- 18, 19.—Patents to be delivered in due course and gazetted. Specifications to be published three months after. The patentee may, if he likes, supply a full copy, or abstract, in which case he will have to pay the cost of publication. Transfers, &c., of patents to be registered.
- 20.—The non-payment of the yearly tax in advance forfeits the patent.
- 21.—The patentee must put the invention in operation in Belgium within a year after it is put to work in a foreign country, or, if he gets a royal licence, within the second year allowed by such licence. Non-compliance with this forfeits the patent.
- 22.—Patents will be null and void from the following causes:—viz., When the object patented is found to have been previously employed for a commercial purpose. When the patentee has given an incorrect specification. When it shall be proved that a complete description of the invention has been published before the legal date of the invention.
- 23, 24.—The courts shall annul a patent, when the object to which it relates shall have been previously patented in Belgium, or a foreign country. Nevertheless, this shall not affect a foreign inventor, or his nominee, as comprised within Art. 14.
- 25.—Patents under the old law to remain in force, and be judged thereby; but such patents may be placed under the new law, if application to that effect be made within twelve months. Payments already made under the old law to count as equivalent to so much annual tax, &c.

#### WEEKLY LIST OF NEW PATENTS.

T. Bell and H. Schofield: Borax.—J. C. Parnelle: Motive power.—S. Frankham: Furnaces.—H. Wickens: Railway signals.—R. Johnson: Coating and insulating wire.—J. Gilbertson: Furnaces.—G. E. B. Colson: Arresting railway trains.—J. McGiffin: Sheet metal pipes.—W. Rye and W. Crowther: Steam engines.—C. P. Stansbury: Furnaces.—C. F. Stansbury: Air-light vessels.

#### WEEKLY LIST OF PATENTS SEALED.

- R. Holt, Shaw, near Oldham—Improvements in machinery or apparatus for manufacturing bricks and tiles.
- B. Britten, Ayrer—Improvements in crushing, pulverising, and washing mineral earths or ores, and amalgamating the gold and silver contained therein, which said improvements are also applicable to crushing and pulverising other substances.
- N. Riggensbach, Basle, Switzerland—Apparatus for preventing incrustation in steam-boilers.
- C. Walker, Barry—Improvements in purifying water for steam-boilers.
- C. W. Siemens, Adelphi-chambers—Improvements in electric telegraphs.
- T. Dunn, Penkilton—Improvements in machinery and apparatus for moving engines and carriages from one line of rails to another, and for turning them.
- W. S. Lock, Wemyss-ryke, Cumberland—Means of decoloring resins.
- W. Pearce, High, near Wigaa—Improvements in machinery for measuring, indicating, and registering the flow of air, gas, and other liquids, and for governing the speed of steam or other engines. (Railway engine).
- G. Hopper, Houghton le Spring Iron Works, Durham—Improvements in pins for T. S. and C. H. Lock, Manchester—Improvements in steam-boilers.
- A. Trueman, Swansea—Improved furnace for the calcination of copper ores and other mineral substances. (Steam-boilers).
- W. Weatherley and W. Jordan, Chatham, near Canterbury—Improvements in J. Canavah, Liverpool—Improvements in sails for navigable vessels, and in the apparatus for working them.
- J. Newman, Birmingham—Improvements in the manufacture of metallic tubes.
- J. Warren, Old Broad-street—Improvements in the construction of railways.
- J. Hamilton, New York—Improvements in machinery for crushing quartz and other substances.
- A. Trueman, Swansea—Improvements in the manufacture of sulphuric acid when roasting copper ores, and also when burning sulphur or iron-pyrites. (Tricities).
- G. E. Dering, Lockley, Herts—Improvements in obtaining motive-power by electricity.
- B. Spottiswood, St. Bride's—Improvements in the manufacture of fuel.
- T. Bramwell, Enfield-house, near Gateshead-on-Tyne—Improvements in the manufacture of the carbonates and prussiates of potash and soda. (Iron).
- C. Hargrove, Birmingham—Improvements in the manufacture of certain kinds of G. J. Hinde, Wolverhampton—Improved combination of materials to be used for the manufacture of pipes or tubes for drains.
- N. Clayton and J. Shuttleworth, Stamp End Iron Works—Improvements in portable and fixed combined threshing, shaking, and winnowing machines.
- W. Yates, Mary-street, Bromley—Improvements in furnaces.
- J. J. Green, Birmingham—Improvements in the manufacture of corrugated elastic materials. (The surface).
- A. Barclay, Kilmarnock—Improvements in lubricating shafts and revolving metal.
- J. P. Oates, surgeon, Lichfield—Improvements in the manufacture of bricks, tiles, pipes, and such other articles as are or may be made of clay.
- W. Simpson, Birmingham—Improvements in apparatus for communicating alarm signals on railways.
- J. MacFarlane, Kennerly—Improvements in steam-boilers.
- J. D. M. Stirling, Blackgrange, county Clackmannan, Scotland—Improvements in the manufacture of iron.
- G. Simpson, Union-buildings, Leather-lane, Holborn—Improvements in furnaces.
- J. M. Blackfield, Millwall—Improvements in the manufacture of china, pottery, bricks, and other articles manufactured for the most part of clay.
- A. E. L. Bellford, Castle-street, Holborn—Certain new and useful improvements in machinery for forging or hammering iron, which may be also applicable to the hammering of other materials.

IRON MANUFACTURE.—Messrs. Wright and Brown, ironfounders, of Newcastle-on-Tyne, have patented some improvements in cupolas, which are also applicable to smelting and other furnaces. The inventors claim—1. The general arrangement and construction of cupolas and smelting furnaces for the self-heating of the air-blast, as hereinbefore described.—2. The application and use in cupolas, smelting, and other furnaces, of receiving-chambers or sections for the reception of the metal or mass of material under treatment from heating-surfaces for the air-blast. 3. The system or mode of heating the air-blast in cupolas and furnaces by passing the air over the surface of, or in contact with the melted or heated mass of material as brought down from the cupola or furnace body.—4. The system or mode of working furnaces, wherein the air is first passed through the fire or through the body materials of the furnace, and then through furnace heating-chambers, or in contact with the heated metal or metals brought down from the furnace body.

METALLIC SURFACES.—Mr. P. Joseph Meus, of Paris, has patented the gliding and coating with metals, by means of heat and pressure, articles composed of or coated with gums, gutta-percha, caoutchouc, or mixtures or combinations of those or analogous substances; also certain methods of imitating embroidery and embossed or figured goods of all descriptions, on yielding fabrics and bodies, and the production of ribbons, trimmings, braid, gold or silver lace, fringes, and articles of a similar description, in gold, silver, platinum, or other metals, either plain, coloured, tinted, or shaded, so as to resemble mother-of-pearl or otherwise.

ARTIFICIAL STONE.—An artificial stone is made at Ipswich, under a patent taken out by Mr. Frederick Ramsome, and is now rather extensively in use for chimney-pieces, vases, and a variety of decorative architectural work. The composition consists of sand, moulded with a fluid silicate of potash, and afterwards baked in a kiln, and the process is ingenious and novel. The fluid silicate is obtained by exposing a thin slice of fused alkali in a steam-bath at a high temperature. The subsequent burning changes the fluid into a glass; so that the articles, when finished, consist of nothing more than the particles of sand firmly cemented by this glass, and are impervious to damp and frost.

#### IMPROVEMENTS IN PRACTICAL MINING.

Some of the greatest improvements in science very frequently work their way in a silent and unobtrusive manner, and people are sometimes hardly aware even of their existence, until some fine morning they brush the dust from their eyelids, and find themselves just a quarter of a century behind the age. Such is prejudice, or rather that spirit of inaction which lies like an incubus upon the bulk of mankind, and induces them rather to follow blindly in the footsteps of others, than to be at the trouble to exercise their own judgment. We were forcibly reminded of this fact the other day, on witnessing one of Medwin and Hall's portable steam-engines at work at a mine in the west of England. "Here!" said the captain, "I have ascertained more, by this little engine, of the value of my mine in three weeks, than under the old system I could have done in six months. Suppose, for instance, I had gone to one of our first engineers (you know what engineers are), why, they'd have kept me waiting a month of Sundays for it; and then, when I got it, I should have had to build, and erect, and go to no end of expense, before I could get to work, as, I dare say, they have found out before this at the Exmouth and Adams United Mines, and a few other places. Instead of this, however, I thought I would look in at the Blackfriars-road; and upon my word," said he, "it was, in point of ready accommodation, like going to a chandler's shop for a ha'porth of soap, or a penny candle." "What power do you want?" they said. "Twenty-horse," said I. "Here you are, then. Are you sure it will be enough for you?—you can have a forty if you like." "Quite enough." "Very well; it shall be at the station to-night." And so it was, and at work here the day after its arrival; for it wants no fixing, as you see. "I'll tell you what it is," continued the captain: "half the mines that are opened now, are opened in the dark. The directors keep on holding meetings, and receiving reports; and, among others, they get one every now and then from the engineer, just to say how he is getting on, and when you are likely to have your engine, which is generally about six months before you really get it; whereas, if they'd take the tools as they are—all ready made to their hands—they'd settle the business in no time. It is only right to speak well of the bridge that carries you safe over."

#### THE ELECTRIC POWER, LIGHT, AND COLOUR COMPANY.

On Wednesday evening we witnessed an exhibition of Dr. Watson's electro-photic signals for railways and semaphoric telegraphing generally at the works, Frogmore-lane, Wandsworth. The night, being dark and stormy, was very favourable for the exhibition; and the company, which included many scientific gentlemen connected with railways and the press, after examining it on the works, proceeded to a considerable distance for the purpose of witnessing its efficiency. Dr. Watson addressed the company at considerable length; and stated that, according to the present system of signalling, the results are dependant on the state of the weather—the fog changing the colour of the light; and another disadvantage was that, by the present arrangement, it could not be conveyed upon which line the danger existed, and the necessary precaution adopted. By the proposed plan, an indefinite series of signals may be transmitted to a great distance from the intensity of the electric light, which in the present mode of producing it is perfectly steady and continuous, and practical in its application. The apparatus is exceedingly simple, and consists merely of a round box, placed on one of its sides at the top of a post, and having its face pierced with a number of apertures, arranged in the form of a circle, crossed by a vertical diameter. On one side of the face of the box are moveable shutters; by giving motion to which by levers the holes may be more or less obscured at will. One of Dr. Watson's electric lamps is placed on a support immediately within the box, which is lined with tin foil, or silvered glass—the light shining through the apertures, which are arranged about 2 in. apart, but at the distance appear as a perfect circle, or when the danger signal is exhibited a brilliant line of light on closing one shutter (A, D) is exhibited; and according to the side, the line on which caution is necessary is clearly indicated; and on closing both a single line of light is left, denoting that the train is required to come to a stop. It must be obvious that there are many advantages connected with Dr. Watson's system—the intensity of light, the certainty of information to the driver and guard of the line upon which caution is necessary, and the abolition of different colours; whilst the whole cost of the apparatus is only 16l. It can also be made available as a daylight signal, by the shutters being painted white. Dr. Watson stated that it could be seen through the densest fog at a distance of five miles. The experiments were of the most satisfactory nature; and the company present appeared highly gratified with the result.

STEAM-ENGINES.—Messrs. BURNETT AND THOMPSON, SPRING-GARDENS ENGINE WORKS, NEWCASTLE-ON-TYNE, have ON HAND HIGH-PRESSURE STEAM-ENGINES, 6 to 20-horse power, of the best construction, and ready for delivery at very short notice.

BLOCKS, SCREW JACKS, &c., of various sizes, and of the best quality.

COLOGNE MINING COMPANY.—The Gérant of this company having been empowered by the shareholders at the general meeting, held at the London Tavern, on Monday, the 31st July, 1854, to RAISE a SUM of £10,000, at 10 per cent. per annum interest, on mortgage of certain property, the council are prepared to receive TENDERS for the same, in sums of not less than £20. The conditions of the loan, with further particulars, may be obtained until the 31st inst., on application at the office, 15a, St. Helen's-place, Bishopsgate, between Eleven and Three o'clock.

GEORGE W. HODGSKIN, Gérant.  
London, August 3, 1854.

MOUNT CARBON COAL COMPANY.—Notice is hereby given, that a GENERAL MEETING of the shareholders will be HELD on Thursday, the 31st inst., at Two o'clock, for the purpose of auditing the accounts, receiving reports, and for the transaction of the general business of the company.

By order, FRANCIS STOKES, Secy.  
Cannon House, 23, Queen-street, London, August 17, 1854.

MOUNT CARBON COAL COMPANY.—Notice is hereby given, that the shareholders are hereby requested to FORWARD to the secretary, on or before the 28th inst., the NUMBERS OF THEIR SHARES, in order that the same may be examined, preparatory to the issue of new shares.

By order, FRANCIS STOKES, Secy.  
Cannon House, 23, Queen-street, London, August 17, 1854.

THE MARIQUITA COMPANY.  
TO THE EDITOR OF THE MINING JOURNAL.  
Sir,—In the monthly returns of the Mariquita Company, inserted in the Mining Journal of last week, the Purima Mines figure (I believe for the first time) as returning a monthly profit of about \$800. It is to be hoped, however, that the Committee of Investigation will not be put off their guard by this, or abate one jot of strictness in scrutinising all the circumstances attendant upon the purchase of the Purima Mines.

Let the committee, for instance, as a matter of warning, refer to the prospectus of the Mariquita Company itself, wherein it is stated that the Santa Ana Mines left a profit between April and December, 1851, of \$32,738; and it was upon this rate of profit that the mines in question were valued at seven years' purchase, and sold to the Mariquita Company, according to the prospectus, for \$3,371 shares of \$1 each.

Let the committee then strike a balance-sheet of the profits and loss of the Santa Ana Mines from the period of their purchase by the Mariquita Company up to the present time, and I think the arithmetical result will be rather startling.

In truth, the "clique" are no sorry hands at making up accounts to suit a special purpose; and I fancy, in this respect, they can work pretty nearly as well, where they have auditors without producing vouchers, as in another company, where they contrive to dispense both with auditors and the production of vouchers, as they do in the Anglo-Mexican Mint Company.

I remain, Sir, your obedient servant.

Field House, Whitby, Aug. 12, 1854. CHRIS. RICHARDSON, of Lincoln's Inn.

Published this day, extra cloth boards and lettered, with 141 Illustrations, price 8s.

THE COMBUSTION OF COAL AND PREVENTION OF SMOKE, CHEMICALLY AND PRACTICALLY CONSIDERED.

By CHARLES WYLLIAMS, Assoc. Inst. C.E.

Containing the Chemistry of Combustion, the Construction of Marine and Land Boilers, the Tubular and Flue Systems compared, and the Economic Abatement of the Smoke Nuisance.—London: John Weale, 39, High Holborn.

Standard Work on South America. Large 8vo., 18s., profusely illustrated.

BRAZIL, THE RIVER PLATE, AND THE FALKLAND ISLANDS, with Cape Horn Route to Australia; including Notices of Lisbon, Madeira, Canaries, and Cape Verde. By W. HANFIELD, many years resident in Brazil, and Secretary to the South American and General Steam Navigation Company.

Illustrated from South American Sketches of Sir W. G. ORSKYTH, K.C.B.; late Minister Plenipotentiary to La Plata, and formerly Chargé d'Affaires at Brazil, and also the Drawings of the Governor of Victoria, Sir C. HORRAN, K.C.B., during his recent mission to Paraguay, of which country much new information is supplied; as also of the region of the Amazon. Portraits, Maps, Charts, and Plans.

See City Articles of Times, Morning Chronicle, and Post; the Economist and Reviewer; also, the Press, Morning Herald, Globe, Sun, Shipping Gazette, Mining Journal, the Civil Service Gazette, Herapath's Journal, the Bankers' Circular, North-east Times, &c.—London: Longman, Brown, Green, and Longmans.

7 Maps, 120 Illustrations, 220 pages; Third Edition, Twenty-first Thousand. Printed for the Railway Companies, parties to the Tourist Ticket System, 3s. 6d., handsomely bound in cloth, gilt, and lettered.

IRISH TOURIST'S ILLUSTRATED HAND-BOOK, 1854.

London: David Bryce, Paternoster-row; J. McElashan, 41, G. Philip and Son, Liverpool; Cornish, Birmingham, and at all Railway Stations.

There being various imitations of this popular work, in name and external appearance more or less similar, it is requested that in all instances the Official or Railway Companies' Edition be ordered.



**FOR SALE.—A SHARE IN A PATENT FOR AN IMPROVED METHOD OF MANUFACTURING ARTICLES** in a trade of a very general and extensive character, whereby great economy and expedition is attained. It is now in very successful operation at the works of the patentee, who has numerous applications for licenses.—Apply, by letter, to Mr. E. J. PATER, 1, Beaufort-hill, Birmingham. None but principals will be treated with.

**TO CAPITALISTS.—TO BE SOLD, A BARGAIN, THE HALF-SHARE OF A SLATE QUARRY.** The property, which is of considerable extent, is held under lease for a long term; and, from its close proximity to a railway, abundant water power, convenient sites for deposit of rubbish, &c., possesses great advantages, and offers an opportunity for profitable investment rarely to be met with.—For terms and particulars, apply to Mr. A. A. ROBINSON, slate merchant, Stratford, near London.

**SLATE QUARRY TO BE SOLD, UNDER GREATER ADVANTAGES** to the purchaser than can appear in an advertisement. £3000 has been expended in purchase and proving; slate has been sold; the prospects established; and orders unlimited. 5000 shares of this quarry were proposed to be offered to the public last year, and there were applications for more. None were allotted, which can be explained. Price £3000—viz., £500 in cash and £2500 in shares, at the purchaser's option.—Apply, by letter in the first instance, to J. P. Hawley-road, Kentish-town. The advertiser will be in London on Friday, September 1, and may be seen personally at Mr. Trulock's offices, No. 2, Royal Exchange-buildings, between Twelve and Four o'clock. None but parties of undoubted respectability can be treated with.

**TO COAL PROPRIETORS AND OTHERS.—VALUABLE FIELD OF COAL AND CANNEL IN PARR, NEAR ST. HELEN'S, LANCASHIRE.—TO BE SOLD OR LEASED, BY PRIVATE TREATY, THE MINES OF COAL AND CANNEL** under an estate in Parr, in the county of Lancashire, known as the MOUNT PLEASANT ESTATE, containing about 65 statute acres, belonging to the devisees of the late Mr. Charles Speakman, of Windle, brewer. The estate is situated on the banks of the Sankey Canal, and is intersected by the turnpike-road leading from St. Helen's to Newton and Bolton, and on the highway leading from St. Helen's to Burtonwood, and is distant about two miles from St. Helen's, and at a very short distance from the Broad Oak Branch of the St. Helen's Railway. The surface of the estate, either with or without the mines, consisting of a farm-house, out-buildings, and several closes of land, having extensive frontages to the turnpike-road and highway respectively, may also be disposed of by private treaty. Plans and information may be had of Mr. THOMAS OLIVER, solicitor, Old Jewry Chambers, or Messrs. CURTIS and CO., Staples Inn, London; and in the country, of Messrs. ANDRELL and HADDOCK, solicitors, St. Helen's, and Messrs. ROWSON and CROOK, solicitors, Prescott; and conditional agreement may be entered into with Messrs. ANDRELL and HADDOCK, St. Helen's.

THOMAS OLIVER, Old Jewry Chambers, London.

**COAL AND IRON.—TO BE SOLD, OR LET AT A RENT, THE RIGHT OF WORKING THE COAL AND IRON MINES** on the estate of Geavagh, county of Sligo, within a short distance of Lough Allen and the Shannon navigation.—Apply to the proprietor, MICHAEL KEOGH, Esq., No. 8, Sydney-terrace, Carrig Avenue, Kingstown, where specimens of the coal can be seen.

**VALUABLE COAL AND IRONSTONE.—GLAMORGANSHIRE.**—TO BE DISPOSED OF, THE LEASE of a highly valuable MINERAL PROPERTY, on the line of the South Wales Railway, which runs for nearly two miles through the estate, and only thirteen miles from the Port of Cardiff, comprising nearly 400 acres, and containing SIXTEEN SEAMS of the finest HOUSE, COOKING, and GAS COALS, varying from 3 to 12 ft. in thickness; and BLACKBAND and ARGILLACEOUS IRONSTONE, of the best quality, of the aggregate thickness of 26 ft. The property has been opened to some extent, and several of the largest seams of coal and about 6 ft. of ironstone won, and a very small further outlay will suffice to bring it into full and extensive operation.

The coke made from some of the seams of coal has been proved to be superior for railway purposes to any in the kingdom, and has for some time been largely manufactured in the neighbourhood, in which also several extensive ironworks have been for many years established upon the same series of coal and ironstone measures. From the contiguity to limestone, and other favourable circumstances, it is estimated that the cost of pig iron, manufactured on the property, would not exceed £2 per ton. An unlimited demand, however, exists for coal and ironstone unconverted, both of which may be conveyed from this property into Staffordshire and other markets, and then sold at a higher remunerative profit. The ironstone opened contains about 40 per cent. of iron, and the abundance of the same renders it a most advantageous and desirable investment.—To view the property, and for particulars and terms, apply to SAMUEL COX, Esq., solicitor, Bridgend, Glamorganshire.

**VALUABLE MINERAL FIELDS IN LINLITHGOWSHIRE.**—TO BE IMMEDIATELY LET, THE MINERALS IN RIDDOCHHILL, MOSS-HALL, and LATCHBRAE, and BACK-O'-MOSS, LONGRIDGE. These lands, extending to nearly 500 acres, are well-known as mineral fields. Coal and ironstone abound. The Torbanehill mineral, frequently, though erroneously, advertised as the Boghead Gas or Cannel Coal, now well-known as its nature, and for its most valuable commercial qualities, which is wrought extensively in the neighbourhood, in, and adjacent to Boghead, exists, there is every reason to believe, in the lands now offered for lease. The minerals will be let for a term of years, may be agreed on. The Wilkintown, Mornington, and Coltness Railway, which connects with the Edinburgh and Bathgate and Caledonian Railways, passes near these properties, affording the readiest possible outlet for minerals in all directions.

Offers for the new mineral, ironstone, and coal, will be received until the middle of September next. Each mineral to be offered for separately, and the lordships for the different kinds of coal to be also distinguished. The lands may be offered for in lots, reserving to the proprietor the power to let the lots to the same or different parties, and also to prefer, though not the highest, offers. Bidders have been put down by the proprietor, and the journals of the bidders will be handed over to the lessee. The offers to be lodged with D. M. and H. BLACK, W.S., 21, St. Andrew-square, Edinburgh; WILLIAM JOHNSTON, writer, Bathgate; WILLIAM ROBERTSON, M.E., 97, Union-street, Glasgow; or the proprietor, Mr. GILLESPIE, of Torbanehill, near Bathgate.—August 8, 1854.

**GREAT TREGUNE CONSOLS, COPPER AND TIN MINES, NEAR FIVE LANES, IN THE PARISH OF ALTARNUN, CORNWALL.**—At a SPECIAL GENERAL MEETING of shareholders, held at the offices of the company, 17, Cornhill, on Wednesday, the 15th Aug., 1854, for the purpose of considering the propriety of raising further capital for the prosecution of working the mine, it was unanimously resolved:—

That the directors of this mine be and are hereby authorised, to issue 1000 additional shares of £1 each, which shall be allotted and sold at the price of £2 10s. per share.

That such additional shares shall entitle the holders thereof to the same rights and privileges, and shall be subject to the same regulations, as the original shares of the mine. And that applications may be made by letter to the secretary of the company, stating the number of shares required, with name and address, the day of allotment being the 15th September next, up to which date the existing shareholders are entitled to the pre-emption of shares proportionate to their present holding.

**THE WELSH POTOLI LEAD AND COPPER MINING COMPANY, CARDIGANSHIRE.**

At the GENERAL HALF-YEARLY MEETING of the shareholders, held at the company's offices, 26, Gresham-street, London, on Monday, the 31st July, 1854, it was resolved:—

That the capital of the company shall be increased by the issue of 3000 additional shares, *pro rata*, to the present proprietors, according to the number of shares held by them, and 10s. per share be paid deposit thereon. All deposits and calls to be entitled to dividend from the date when paid.

I am instructed by the directors to inform proprietors, that they are entitled to one of such new shares, as aforesaid, for every original five shares, on condition that the deposit of 10s. per share thereon is paid to any of the undermentioned parties on or before the 5th day of September next, and if such deposit is not paid at that period the allotment will be cancelled—viz., The Commercial Bank of London, Lombard; Messrs. Duffell, Lottinhouse, and Whitworth, Prince-street, Manchester; Mr. T. W. Wilkinson, at the offices of the company, 26, Gresham-street, London.

Shareholders not registered should immediately apply, stating the number of shares they hold, in order that an allotment letter may be forwarded to them; and should they wish to take any additional number of shares beyond that to which they are entitled, on written application being made to the directors, and forwarded to me at the company's offices, any shares not taken up will be allotted to the applications made, in order of priority of application.

I am further instructed to inform them, that the bankers will be instructed to accept the full amount of the shares to be allotted (viz. £3 per share); and should proprietors elect to pay up the same by the above period, they will rank for dividend in January next, the same as the other paid-up shares of the company.

NOTE.—Calls on these shares will not exceed 10s. per share, each three months. T. W. WILKINSON, Purser and Managing Director. Offices of the Welsh Potoli Lead and Copper Mining Company, 26, Gresham-street, London.

N.B.—The dividend declared of £10 per cent. on the company's capital (really at the rate of 40 per cent. per annum) will be payable at the offices of the company on and after the 29th of August inst.

**THE WYSGAN SLATE AND SLAB QUARRYING COMPANY, FESTINIOG, NORTH WALES.**

At the GENERAL HALF-YEARLY MEETING of the shareholders, held at the company's offices, 26, Gresham-street, London, on Monday, the 31st July, 1854, it was resolved:—

That the capital of the company shall be increased by the issue of 10,000 additional shares, *pro rata*, to the present proprietors, according to the number of shares held by them, at £2. 6d. per share be paid deposit thereon. All deposits and calls to be entitled to dividend from the date when paid.

I am instructed by the directors to inform proprietors, that they are entitled to one of such new shares, as aforesaid, for every original two shares, on condition that the deposit of 2s. 6d. per share thereon is paid to any of the undermentioned parties on or before the 5th day of September next, and if such deposit is not paid at that period the allotment will be cancelled—viz., Messrs. Dismdale, Drewett, Fowler, and Co., bankers, Cornhill, London; Messrs. Duffell, Lottinhouse, and Whitworth, Prince-street, Manchester; or to Mr. T. W. Wilkinson, at the offices of the company, 26, Gresham-street, London.

Shareholders not registered should immediately apply, stating the number of shares they hold, in order that an allotment letter may be forwarded to them; and should they wish to take any additional number of shares beyond that to which they are entitled, on written application being made to the directors, and forwarded to me at the company's offices, any shares not taken up will be allotted to the applications made, in order of priority of application.

I am further instructed to inform them, that the bankers will be instructed to accept the full amount of the shares to be allotted (viz. £1 per share); and should proprietors elect to pay up the same by the above period, they will rank for dividend in January next, the same as the other paid-up shares of the company.

NOTE.—Calls on these shares will not exceed 3s. 6d. per share, each three months. T. W. WILKINSON, Purser and Managing Director. Offices of the Wysgan Slate and Slab Quarrying Company, 26, Gresham-street, London.

N.B. The dividend declared of 10 per cent. per annum will be payable at the offices of the company on and after the 29th August inst.

## Statutaries of Cornwall.—In the Vice-Wardens' Court.

### PIKE v. STRIDE.

#### IN RE WHEEL CUPID MINE.

NOTICE IS HEREBY GIVEN, that, pursuant to an ORDER, or DECREE, made in this cause, and bearing date the 18th day of August inst., a PUBLIC AUCTION will be HELDEN at the Registrar's Office, Truro, on Wednesday, the 6th day of September next, at Twelve o'clock at noon, for SELLING TWENTY (20) PARTS, or SHARES, of the said Defendant, and of in the said MINE (or as many of the said shares as shall be necessary to satisfy the said order or decree), and the like PARTS, or SHARES, of and in the ORES, HALVANS, ENGINES, MACHINERY, and MATERIALS, and OTHER EFFECTS upon and belonging to the said MINE.—For further information, application may be made to Mr. S. T. G. DOWDNEY, solicitor, Redruth; or to Messrs. HOBBS and HOCKIN, solicitors, Truro.—Dated Registrar's Office, Truro, August 23, 1854.

## Statutaries of Cornwall.—In the Vice-Wardens' Court.

### PIKE v. RICHARDS THE YOUNGER.

#### IN RE CATHEDRAL MINE.

NOTICE IS HEREBY GIVEN, that, pursuant to an ORDER, or DECREE, made in this cause, and bearing date the 18th day of August inst., a PUBLIC AUCTION will be HELDEN at the Registrar's Office, Truro, on Wednesday, the 6th day of September next, at Twelve o'clock at noon, for SELLING TWENTY-ONE (21) PARTS, or SHARES, of the said Defendant, and of in the said MINE (or as many of the said shares as shall be necessary to satisfy the said order or decree), and the like PARTS, or SHARES, of and in the ORES, HALVANS, ENGINES, MACHINERY, and MATERIALS, and OTHER EFFECTS upon and belonging to the said MINE.—For further information, application may be made to Mr. S. T. G. DOWDNEY, solicitor, Redruth; or to Messrs. HOBBS and HOCKIN, solicitors, Truro.—Dated Registrar's Office, Truro, August 23, 1854.

**TO MINE ADVENTURERS.—A PRACTICAL MINER,** of considerable experience, residing in Cornwall, who has been accustomed to travel, and to the management and surveying of mines, assaying of silver ores, and is familiar with the Spanish language, begs to OFFER HIMSELF to INSPECT, REPORT UPON, and SURVEY, any MINES or MINING PROPERTY, either in England or elsewhere.—Apply to "Inspector," Mining Journal office, No. 26, Fleet-street, London.

**WANTED, BY A PRACTICAL MAN, A SITUATION AS MINING ENGINEER.** He would have no objection to go abroad. Satisfactory testimonials as to character can be had on application, by letter, to "H. T.," care of the editor of the *Quarant*, Newcastle-on-Tyne.—August 22, 1854.

**WANTED, AN ASSISTANT COMPETENT TO SURVEY COLEMIER WORKINGS, AND TO KEEP PLANS.**—Apply, with testimonials of character and ability, to Mr. F. C. GILBERT, mining engineer, Chesterfield.

**WANTED TO PURCHASE.—MINING SHARES** in the Welsh Potoli, Festinog, San Fernando, and Llaneros Mining Companies; also, in the Wysgan Slate Company.—Address to "T. L. M.," Post-office, Leamington, Warwickshire. State lowest price in each case.

**STEAM-ENGINE.—WANTED, A STEAM-ENGINE,** from 20 to 25-horse power, to work a counter beam for pumping; one on Boulton and Watt's principle would be preferred.—Apply, with price, &c., to JOHN CONNERT, Esq., Stoke Works, Bromsgrove.

**STEAM-ENGINES.—ON SALE, ONE 15-HORSE, SEVEN 5-HORSE, TWO 3-HORSE POWER STEAM-ENGINES;** from their simplicity of construction, and the small space occupied, they are suitable for exportation.—Apply to SIMPSON and CO., engineers, Openshaw, near Manchester.

**STEAM-ENGINES AND BOILERS.—FOR SALE, BY PRIVATE CONTRACT, A 30-IN. CONDENSING BEAM ENGINE;** a 20-in. ditto; with fly-wheel and two winding-barrels.—Apply to the NEATH ABBEY COAL COMPANY, Neath Abbey, Glamorganshire.

**ENGINES FOR SALE.—A 36-INCH PUMPING ENGINE** and BOILER, complete; also, a 16-INCH STEAM WHIM CAGE and BOILER.—For particulars, apply to Mr. EDWARD BURGESS, Camborne, Cornwall.

**FOR SALE, BY PRIVATE CONTRACT, AN EXCELLENT 24-INCH CYLINDER SINGLE CONDENSING ENGINE** without boiler, 9-feet stroke in cylinder and 7 ft. in the shaft, with first piece of rod and caps. Every part is in good condition. This engine is lying at Wheal Langford, near Callington, having just been taken down to be replaced by a larger engine. To treat for the purchase, apply to EDWARD A. CROUCH, Liskeard. August (8th month) 20th, 1854.

**FOR SALE.—A 36-INCH CYLINDER PUMPING ENGINE, 9 ft. stroke** by 8 ft. boiler, complete; also, in first-rate condition. The engine may now be seen at Wheal Bann, near St. Austrey. For further particulars, apply to Mr. SAMUEL YORK, Penzance.—Dated August 1, 1854.

**FOR SALE, AT ST. JUST FOUNDRY, A NEW 24-INCH CYLINDER ENGINE, 9 feet stroke** in cylinder, with 9 tons boiler. Also, ONE 16-INCH SECOND-HAND ROTARY ENGINE, 3 feet stroke, with slide valve, and boiler 5 tons, in good condition.—August 11, 1854. J. N. HOLMAN AND SONS.

**TO CAPITALISTS.—FOR SALE, 250 WYSGAN SLATE SHARES,** of £1 each, all paid up, now paying 10 per cent. dividend. Also, 100 East Caradon, 30 Marke Valley, and 50 West Par.—For particulars, apply to Mr. B. JONES, law stationer, &c., Devizes (post paid).

**BERDAN'S QUARTZ CRUSHING MACHINE.**—Any party having one to DISPOSE OF may HEAR OF A PURCHASER by addressing "D. Y.," Mining Journal office, 26, Fleet-street, London.

**BLACKBAND IRONSTONE IN AYRSHIRE.—TO BE LET,** the extensive and valuable FIELD of BLACKBAND in the estate of Littlemill or Kerse, near Patna, and on the line of the Ayr and Dalmellington Railway. Numerous borings have proved this ironstone to be of unusual thickness, and its suitability for ironmaking is well established in the district. There is also COAL in the lands. The ironstone field will be let in whole or in lots, as may be agreed on.—For further information, apply to Mr. DAVID CAMPBELL, Mouthmill-on-Ayr; or to Mr. JOHN GEDDES, mining engineer, Edinburgh. Proposals to be addressed to Mr. GEDDES. August 9, 1854.

**BRITISH AND COLONIAL SMELTING AND REDUCTION COMPANY.**—Notice is hereby given, that the ORDINARY HALF-YEARLY MEETING of the shareholders in the above company will be HELD at the London Tavern, in the City of London, on Thursday, the 31st day of August inst., at Two o'clock in the afternoon precisely, pursuant to the Deed of Settlement.

The Transfer-books will be closed from the 15th until the 31st of August inst., both inclusive. By order of the Board, T. M. WALFORD, Sec.

No. 8, Old Jewry, August 17, 1854.

**CARBERRY WEST MINING COMPANY OF IRELAND.**—Notice is hereby given, that an ADJOURNED GENERAL MEETING of the above company will be HELD at the offices of the company, Adelaide Chambers, Gracechurch-street, on Friday, the 1st September next, at One o'clock, to take into consideration the present and future prospects of the company, previously to which date unregistered scripholders are requested to register their scrip.

August 4, 1854. By order, C. M. MANLEY, Sec.

**COOSHEEN COPPER MINING COMPANY.**—Notice is hereby given, that the ADJOURNED GENERAL MEETING of the shareholders of this company will be HELD at the office of the company, No. 62, Moorgate-street, London, on Tuesday, the 29th day of August inst., at One o'clock precisely, to receive the Report of the Directors, with the accounts, and for transacting the general business of the company.

By order of the Board, J. REYNOLDS GWATKIN, Sec. pro tem.

Coosheen Mining Company's office, 62, Moorgate-street, London, Aug. 24, 1854.

**IVYBRIDGE MINE.—A GENERAL MEETING** of this company will be HELD at the company's offices, 76, Cornhill, on Monday, the 28th inst., at One o'clock P.M. precisely.

**THE GREAT CAMBRIAN MINING AND QUARRYING COMPANY.**—Notice is hereby given, that an ORDINARY GENERAL MEETING of the adventurers, or shareholders, will be HELD at the company's offices, 28, Threadneedle-street, London, at Twelve o'clock at noon precisely, on Wednesday, the 27th day of September next, for the transacting of the general business of the company, and also to determine upon the amount of dividend to be declared, and to make, alter, and confirm such alterations or additions in and to the Rules and Regulations of the company as may be deemed necessary by the adventurers or shareholders attending such meeting.

By order of the Board, C. T. SKEFFINGTON, Chairman.

August 9, 1854.

**GREAT POLGOOTH MINE.—AT A SPECIAL GENERAL MEETING** of the adventurers, held at the offices, No. 53, Old Broad-street, on Saturday, the 19th August, 1854.

The following resolution was passed unanimously:—That the committee of management be hereby empowered to dispose of the following shares, originally represented by scrip certificates, numbered as below, on which no instalment of the call of 15s. per share has been paid, in such manner and at such time as they may consider most desirable for the interests of the adventurers.

By order of the Committee, WM. C. FOULKES, Sec.

134, 135, 321, 411, 502, 505, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

**CLARENDON CONSOLIDATED MINING COMPANY OF JAMAICA.**—Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the CLARENDON CONSOLIDATED MINING COMPANY OF JAMAICA, will be HELD at the London Tavern, Bishopsgate-street, in the City of London, on Thursday, the 31st day of August inst., at One o'clock precisely, in conformity with the terms of the company's Deed of Settlement.

And notice is hereby further given, that the Transfer-books of the company will be closed from the 26th day of August to the 31st day of September, both days inclusive.

By order of the Board, JOHN E. LOHR, Sec.

25, Moorgate-street, London, August 12, 1854.

## VALUABLE MINE MATERIALS FOR SALE.

**MR. LITTLE WILL SELL, BY AUCTION,** on Tuesday, the 29th inst., commencing at Eleven o'clock precisely, at GUSTAVUS MINE, in the parish of Camborne, all the MATERIALS and tools in the said MINE, comprising 60 in. cylinder STEAM-ENGINE, 9 ft. stroke in cylinder, and 7 ft. in shaft.

1 balance-bob.	Lot of iron pump rods.
Capstan and shears.	Lot of faggoted iron, new.
10 in. capstan-rope.	2 smiths' bellows, 2 anvils, 1 vice.
1 horse-whim, with shaft tackle.	4 horse-whim kibbles.
250 fms. 7-16ths whim-chain.	4 wine kibbles.
48 ft. 10 in. pumps.	1 iron shaft cover.
8 ft. 9 in. pumps.	Staples and glands.
10 ft. 8 in. pumps.	4 wood clifters.
11 ft. 11 in. plunger-pole, with case, stuffing-box, and glands.	4 jiggering buckets.
110 ft. 8 in. ditto ditto	Quantity iron stove ladders.
110 ft. 7 in. ditto ditto	Quantity wood stove ladders.
210 ft. 9 in. working-barrel.	Old cast-iron.
19 ft. 6 in. working-barrel.	Lot of launders.
111 in. H-piece, and top doorpiece to match.	Smiths' and miners' tools.
18 in. ditto ditto	Wheel and hand barrows.
21 in. windbore.	Several miners' chests.
11 in. windbore.	1 piece of oak, 16 ft. long, 15 in. square.
23 in. windbore.	A quantity of whole, half, and quarter timber.
39 in. doorpieces.	A quantity of plank.
60 fms. of 13, 12, 11, and 10 in. rods.	2 carpenters' benches.
Several pairs tapered rod-plates.	And sundry other articles.

The whole of the above are in good condition, nearly new, and are well deserving the attention of purchasers.—For particulars, apply to the agent, on the mine, or the auctioneer, Redruth.—Dated Redruth, August 9, 1854.

## CALLINGTON MINES.

**MR. RENDELL** has been favoured with instructions to submit for SALE, BY PUBLIC AUCTION, on Tuesday, the 29th of August inst., at the CALLINGTON MINES, Cornwall, the undermentioned excellent MACHINERY and MATERIALS (unless previously disposed of by private contract, of which due notice will be given)—viz., A 60 in. cylinder FURNING ENGINE, with 2 boilers, each 12 tons, first piece of rod, powerful winch, and the wood work of the said engine-house, included; 35 fms. of 19 in. rod pine main rods, with strapping-plates and bolts to fit; 83 fms. 12 in. pumps, with 2 13 in. plungers, complete; ironwork for a balance-bob, complete; a 40 ft. water-wheel, nearly new, 27 in. breast, with cast-iron rings, sockets, and axle, to which is attached 24 heads of stamps, with cast-iron axes, gear work, all in prime working condition; a 25 ft. water-wheel, 20 in. breast, which a compact little crusher and 8 heads of stamps are fixed; a 12 ft. water-wheel, 26 in. breast; a 12 ft. water-wheel, 30 in. breast; a 9 ft. water-wheel, 11 in. breast; a pair of Brunton's patent frames, with a wheel to work the same; capstan and shears; 11 in. capstan-rope, about 150 fms. long; a quantity of large and moderate sized timber, as good as new; a lot of shaft ladders, with iron staves; a variety of shears, launders, plank, and other timber, with several smaller articles very useful for mining







Shares.	Paid.	Last Price.	Present.	Shares.	Paid.	Last Price.	Present.
800 Craig-y-Mwyn (land), Llanrhadr	8 ½	...	...	3000 Poigwar & Llanaraw (cop., tin)	£3 3	...	½ ... ½

Share.	Notes.	Price.	Last Price.	Present.	Dividends per Share.	Last Paid.
3130	Alfred Consols (copper), Phylack	22 1/2	22 1/2	22 1/2	21 10	10 Aug. 1854.
3135	Algoni Consols Slate Quarry	2	1 1/2	2 1/2	0 3 0	0 16 July 1854.
3140	Anglo Coal Company	4	1 1/2	1 1/2	0 10 0	0 20 Nov. 1853.
1434	Bellview (tin), St. Just	11 1/2	6 1/2	11 1/2	11 3 0	0 30 Jan. 1854.
3050	Best Hill (copper), Selwyn	12 1/2	12 1/2	12 1/2	0 10 0	0 10 April 1853.
4000	Bedford (copper), Tavistock	3 1/2	3 1/2	3 1/2	0 10 0	0 7 May 1854.
3000	Black Craig (lead), Kirkcubright	3 1/2	3 1/2	3 1/2	0 10 0	0 26 July 1853.
124	Bowditch and Wheel Castle	3 1/2	3 1/2	3 1/2	0 10 0	0 30 May 1853.
310	Bottlekin (tin, copper), St. Just	9 1/2	3 1/2	3 1/2	30 3 0	0 10 Aug. 1854.
1000	Bryant's, Llanidloes, Montgomeryshire	7	0	0	0 3 0	0 30 June 1851.
3000	Callington (lead, copper), Callington	7 1/2	17 1/2	2	1 8 0	0 4 Sept. 1847.
1060	Cara Brea (copper, tin), Illogan	15	1 1/2	1 1/2	22 10 0	0 2 April 1854.
1000	Castle Mine Quarry, Dolwyddelan	1	1 1/2	1 1/2	0 1 0	0 9 Aug. 1854.
1000	Comford (copper), Gwennap, Cornwall	75	20	110	32 0 0	3 0 0 June 1854.
320	Condarroo (copper, tin), Camborne	20	130	110	30 0 0	3 0 0 May 1854.
123	Cwmtywth (lead), Cardiganshire	60	135	110	30 0 0	3 0 0 May 1854.
1034	Darwen Great Consols (copper), Tavistock	1	600	19 1/2	30 0 0	3 0 0 May 1854.
12000	Dharon (copper), Ireland	1	1	1	30 0 0	3 0 0 May 1854.
472	Ding-dong (tin), Gwyl	1	1	1	30 0 0	3 0 0 May 1854.
179	Dolmuth (copper, tin), Camborne	21 1/2	75	1	30 0 0	3 0 0 May 1854.
3000	Drake Walls (tin, copper), Calstock	12 1/2	3	2	0 6 0	0 16 April 1853.
300	East Darwen (lead), Cardiganshire	3 1/2	80	1	4 0 0	2 0 0 Jan. 1853.
128	East Pool (tin, copper), Pool, Illogan	24 1/2	1	1	238 0 0	2 10 0 April 1854.
128	East Wheel Rose (silver-lead), Newlyn	24 1/2	1	1	238 0 0	10 0 0 March 1853.
1024	East Wheel Margaret (tin, copper)	5 1/2	12 1/2	1	0 5 0	0 30 Feb. 1854.
1200	Eyan Mining Company, Derbyshire	3 1/2	19 1/2	1	3 3 4	0 10 Aug. 1854.
404	Fewey Consols (copper), Tywardreath	1	1	1	30 13 0	1 10 0 Aug. 1850.
3240	Fishale, Isle of Man	7 1/2	10 1/2	25	40 7 3	1 0 0 July 1854.
320	Doit (New Shares of 25s. each)	13	15	1	1 8 0	0 12 July 1854.
4445	General Mining Co. for Ireland (cop. lead)	2 1/2	3 1/2	2 1/2	1 0 0	0 3 June 1853.
1024	Gwynn (lead), Cardiganshire, Wales	4 1/2	6	1	22 0 0	0 2 Sept. 1850.
1024	Gwynn (copper), St. Cler	12 1/2	10	10	0 7 6	0 7 Dec. 1853.
12730	Great Foleys (tin), St. Austell	3 1/2	1	1	0 10 0	0 4 Oct. 1853.
113	Great Work (tin), Gernoe	100	1	1	174 10 0	3 0 0 Aug. 1854.
1024	Herodfoot (lead), near Liskeard	8 1/2	13	7	3 12 6	0 7 6 April 1854.
6000	Hingham Down Consols (copper), Calstock	25	13	1	0 10 0	0 5 May 1854.
1000	Holmshush (lead, copper), Callington	25	1	1	23 0 0	1 Feb. 1854.
3000	Holyhead (copper), near Tipperary	1	1	1	3 3 0	0 5 Sept. 1853.
76	Jamaica (lead), Mold, Flintshire	31 13s. 6d.	1	1	330 0 0	5 0 0 March 1851.
20000	Kemmare and West of Ireland	1	1	1	0 1 6	0 16 Sept. 1853.
3045	Kemngy (copper), Breage	5s. 7d.	1 1/2	1	0 4 0	0 4 March 1854.
735	Kirkcubright (lead), Kirkcubright	9 1/2	1	1	1 10 0	0 5 May 1854.
30000	Lackmore (copper), Tipperary, Ireland	1	1	1	1 0 0	0 10 July 1853.
20	Laxey Mining Company, Isle of Man	100	2	2	50 0 0	50 0 0 Aug. 1854.
3000	Lewis (tin, copper), St. Erth	12 1/2	2	2	0 2 0	0 2 Aug. 1851.
150	Levant (copper, tin), St. Just	3 1/2	1	1	1042 0 0	2 0 0 Aug. 1854.
408	Lisborne (lead), Cardiganshire, Wales	15 1/2	200	1	128 5 0	5 0 0 June 1854.
320	Machno State and Slab Company	25	30	30	1 17 6	1 3 0 June 1853.
150	Doit (New Shares)	15 1/2	15	15	0 12 6	0 12 June 1853.
8000	Marke Valley (copper), Caradon	41 10s. 6d.	1	1	0 2 6	0 2 May 1853.
3000	Marble Hills (lead), Somerset	3 1/2	1	1	1 11 0	0 2 June 1853.
3000	Merllyn (tin), St. Austell	2 1/2	1	1	9 12 6	0 10 June 1854.
30000	Mining Co. of Ireland (copper, lead, coal)	1	1 1/2	1 1/2	0 2 6	0 13 Nov. 1853.
3000	Nantale Vale (slate), Llanfyllin	1	1	1	8 7 0	2 0 0 July 1854.
470	Newtarns Main Company, Co. Down	10	190	1	313 0 0	5 0 0 June 1854.
300	North Pool (copper, tin), Pool, Illogan	22 1/2	10	1	249 10 0	4 0 0 Sept. 1853.
140	North Rozebar (copper), Camborne	10	15	1	2 16 0	0 5 Jan. 1854.
6000	North Wheel Bassett (copper, tin), Illogan	10 1/2	15	1	70 0 0	23 6 0
1128	North Wheel Croft (copper), Illogan	10 1/2	15	1	23 6 0	0 10 July 1853.
6400	Par Consols (copper), St. Biazey	1 1/2	1	1	2 0 0	0 10 June 1854.
500	Peak United (lead), North Derbyshire	1 1/2	1	1	1 15 0	0 10 June 1851.
160	Perran St. George (cop. tin), Perranabawle	21 1/2	1	1	20 0 0	0 2 Nov. 1853.
200	Phoenix (copper, tin), Linkinhorne	10	15	1	5 3 0	10 0 0 March 1854.
3000	Pollaro (tin), St. Agnes	15	19	1	21 13 6	0 10 Aug. 1854.
500	Providence Mines (tin), Ury Lelant	20 1/2	1	1	0 8 0	0 4 Jan. 1853.
1045	Rix Hill (tin), Tavistock	3 1/2	1	1	326 0 0	8 0 0 July 1854.
236	South Caradon (copper), St. Cler	2 1/2	250	250	1 15 0	0 7 June 1854.
3000	South Tamar (silver-lead), Berrifris	11 1/2	10	10 1/2	69 0 0	0 4 May 1853.
236	South Tamar (copper), Berrifris, Cornwall	15	12	13	247 3 0	3 0 0 July 1854.
236	South Wheel Franco (copper), Illogan	3 1/2	250	1	8 8 6	0 2 Dec. 1853.
1024	Sparrow Consols (tin), St. Just, Cornwall	3 1/2	1 1/2	1 1/2	0 17 6	0 7 April 1852.
1024	St. Aubyn and Grylls (copper, tin), Breage	3 1/2	1 1/2	1 1/2	888 0 0	8 0 0 Feb. 1854.
94	St. Ives Consols (tin), St. Ives	50	1	1	12 10 0	4 11 0
1000	Stray Park and Camborne Vein (copper)	10 1/2	1 1/2	1 1/2	6 18 6	0 19 Feb. 1853.
9000	Tamar Consols (silver-lead), Berrifris	4 1/2	1 1/2	1 1/2	6 18 6	0 19 Feb. 1853.
8000	Tincoff (copper, tin), near Pool, Illogan	7	12	13	7 1 3	0 10 July 1854.
1024	Trehan (silver-lead), Menheniot	1 1/2	12	13	0 10 0	0 6 Oct. 1847.
5000	Trevelian Consols (copper), Redruth	6 1/2	31	31	1 13 0	1 0 Feb. 1854.
372	Trevelian Consols (tin), St. Ives	11 1/2	31	31	480 10 0	— 1848.
56	Trevelian (copper), Gwennap, Cornwall	32 1/2	31	31	402 10 0	— April 1851.
120	Trevelian (copper), Gwennap, Cornwall	32 1/2	31	31	303 10 0	4 0 March 1854.
120	Trevelian and Barrior (copper), Gwennap	32 1/2	40	40	0 13 0	0 30 June 1854.
4096	Trevelian (silver-lead), Menheniot, Cornwall	1	4	3 1/2	50 0 0	3 0 March 1854.
100	Trumpet Consols (tin), near Helston	95	1	1	47 5 0	3 0 Feb. 1854.
400	United Mines (copper), Gwennap	60	313	313	2 2 6	0 30 March 1851.
1024	Wellington (copper, tin), Perranabawle	8 1/2	12	12	0 10 0	0 10 Aug. 1854.
7500	Wheel Potul (silver-lead), Talybont, Card.	5	9	9	0 4 0	0 4 Aug. 1854.
3000	Doit	2	9	9	251 5 0	5 0 June 1854.
236	West Caradon (copper), Liskeard	20	155	155	2 0 0	2 0 Aug. 1854.
236	West Damsel (copper), Gwennap	210 7	5	5	22 0 0	2 0 Aug. 1854.
1024	West Providence (tin), St. Erth	3	29	29	2 0 0	2 0 Jan. 1854.
1024	West Wheel Darrington	131 13s. 6d.	3	3	5 0 0	5 0 Dec. 1853.
200	West Wheel Trevelian (copper), Camborne	75	250	210	5 0 0	5 0 Aug. 1854.
1024	West Wheel Trevelian (copper), Camborne	106 4s. 10d.	3 1/2	3 1/2	0 10 0	0 10 May 1853.
1229	Wheel Arthur (copper), Calstock	7	35	22 3/4	2 10 0	0 12 June 1854.
236	Wheel Bassett (copper), Illogan	10 1/2	600	603	567 10 0	25 10 Aug. 1854.
236	Wheel Brewer (copper), Gwennap	4	800	790	331 3 0	35 0 June 1854.
236	Wheel Buller (copper), Redruth	5	800	790	331 3 0	35 0 June 1854.
236	Wheel Clifford (copper), Gwennap	5	800	790	331 3 0	35 0 June 1854.
3136	Wheel Exmouth and Adams United	41 14s.	9	9	3 13 8	2 5 March 1853.
100	Wheel Friendly (tin), St. Agnes	70	115	115	1 0 0	0 26 April 1851.
128	Wheel Friendship (copper), Devon	1	115	115	0 10 0	0 10 Aug. 1854.
5000	Wheel Golden (lead), Perranabawle	1 1/2	2 1/2	2 1/2	375 10 0	8 0 May 1854.
6000	Wheel James (iron, copper), Roche	1 1/2	2 1/2	2 1/2	1 5 0	0 20 Sept. 1852.
430	Wheel Jane (silver-lead), Kila	1 1/2	2 1/2	2 1/2	0 2 0	0 20 May 1853.
510	Wheel Lave (tin), Wendron	33	32 1/2	32 1/2	4 10 0	1 0 Oct. 1853.
112	Wheel Margaret (tin), Ury Lelant	79	125	125	28 0 0	2 0 May 1854.
312	Wheel Mary Ann (lead), Menheniot	5 1/2	35	35	25 10 0	2 0 March 1854.
60	Wheel Owen, St. Just, Cornwall	70	390	390	160 13 0	12 10 Aug. 1854.
200	Wheel South (tin), Ury Lelant	20 1/2	150	150	25 10 0	2 0 Sept. 1852.
156	Wheel South (tin), Ury Lelant	107	150	150	45 0 0	1 10 July 1854.
520	Wheel Trevelian (silver-lead), Liskeard	8 1/2	45	45	10 2 6	0 7 Jan. 1854.
1024	Wheel Trevelian (tin, copper), Gwennap	9 1/2	52	51 1/2	21 10 0	1 12 July 1854.
5000	Wicklow (copper), Wicklow	5	52	51 1/2	8 0 0	0 10 Oct. 1853.
5000	Wyrran (slate), Festiniog	1	1	1	0 1 0	0 10 Oct. 1853.

## FOREIGN MINES.

7000	Altan Mining Company (copper), Norway	\$14½	3½	—	—	—	4 3 0	0 13 0—Nov., 1833.	24000	Perran and Leisure Union	1¼	—	—	180	Wynham Consols	37	—	37	—
7200	Baden, Grand Duchy of	1	—	—	—	—	9 1 0	0 10—Nov., 1832.	1000	Peter Tavy & Mary Tavy (cop.)	3½	—	—	4096	Yeoland Consols (tin, copper)	4½	—	2¼	—
19009	Brazilian Imperial (gold), Brazil	23	—	—	—	—	34 17 5	0 10 0—Dec., 1844.											
2464	Burra Burra (copper), South Australia	5	—	100	—	—	130 0 0	5 0 0—June, 1854.											
12908	Cobre Copper Company (copper), Cuba	60	—	57	—	—	65 12 0	4 0 0—July, 1854.											
190000	Colombian Gold, Australia	1	—	—	—	—	1 1 8	0 1 6—March, 1854.											
10000	Copado Mining Company (copper), Chili	16	—	12	—	10 13	8 18 0	0 5 0—Oct. 1851.											
20000	General Min. Assoc. (iron, coal), Nova Scotia	39	—	14	—	13 13	8 0 0	0 10 0—June, 1852.											
10000	Linares de la Paz (silver), Mexico	39	—	14	—	13 13	8 0 0	0 15 0—March, 1854.											
193818	Mariquita and New Granada	1	—	—	—	—	0 2 0	0 1 0—July, 1853.											
30000	Mexican and South American (cop.), Mexico	1	—	—	—	—	5 3 0	0 7 6—Dec., 1853.											
88713	North British Australian	1	—	—	—	—	0 8 0	0 8—March, 1854.											
32006	Obernorth (lead), Nassau	1	—	—	—	—	0 1 0	0 10—June, 1853.											
7000	Royal Santiago (copper), Cuba	11½	—	5	—	5 5½	33 4 0	1 5 0—July, 1848.											
100000	San Fernando (silver-lead), Linares	1	—	—	—	—	0 1 9	0 7—June, 1854.											
11908	S. John del Rey (gold), Brasil	15	—	26	—	26 28	23 17 8	2 0 0—May, 1854.											
43174	United Mexican (silver), Mexico	A.V.	28	—	3½	3½ 3½	1 16 5	0 4—Feb., 1853.											

MINES NOT HAVING SOLD ORES.												Shares.				Paid.				Prior.				Shares.				Paid.				Prior.			
Shares.	Paid.	Prior.	Shares.	Paid.	Prior.	Shares.	Paid.	Prior.	Shares.	Paid.	Prior.	Shares.	Paid.	Prior.	Shares.	Paid.	Prior.	Shares.	Paid.	Prior.	Shares.	Paid.	Prior.	Shares.	Paid.	Prior.	Shares.	Paid.	Prior.						
20000	Angarrack Consols.	1	—	1¼	—	1000	Great Cornw. Cons.	100	—	—	—	21008	South Devon Consols	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
10000	Arundell Copper	1	—	1¼	—	1000	Gt. Dukerdt Wel. Con.	1	—	1¼	—	10009	South Herodsford	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
12000	Bannow, Wexford	1½	—	—	—	512	Great Rough Tor	37	—	15	—	340	South Trevelyan	1½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
1000	Blanc Caylen (lead) & I.	6	—	—	—	10000	Great Treburget	—	—	—	—	3077	South-West Phoenix & I.	6½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
5000	Bodewy, S. Wales	1½	—	—	—	6000	Halkin Castle	—	—	—	—	1024	South Wheal Alfred	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
6000	Bolnese	1½	—	—	—	4000	Haven & Headwch.	—	—	—	—	1000	South Wheal Aired	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
1180	Bridford Consols	—	—	—	—	4000	Hemerdon Consols	—	—	—	—	4000	South Wheal Aired	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
2000	Britannia, Devon	—	—	—	—	4000	Hilberman, I.	—	—	—	—	10000	Talswain, Cardigansh.	3½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
812	Butterdown	—	—	—	—	30000	Irish Consols	—	—	—	—	10000	Tamar Maria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
5000	Callington Valley Con.	1	—	—	—	1024	Ivy Tor Consols	\$118 6	—	—	—	1800	Teign Hope (Dart.)	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
4000	Cardon Wood (lead) & I.	6	—	—	—	30000	Kilrinate, Donegal	—	—	—	—	4000	Tregoneh & Farwork	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
30000	Carberry West, Ireland	1	—	—	—	4000	Knockatrelane, Irel.	1	—	—	—	4000	Tremollett Downs	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						

### NON-DIVIDEND FOREIGN MINES.

[illegible]

### MINES WHICH HAVE SOLD ORES.

Prices.	Lead.	Best.	Price.	Present.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
---------	-------	-------	--------	----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

\* In accordance with an announcement to that effect, we have removed the prices from all mines in the above list where alterations have not been forwarded, or the price given confirmed, for a period of one month: we hope by that means to remove one difficulty,—that of purchasers or sellers being deceived by the quotation in the current Journal being represented as the present value, although the price may have varied considerably since it first appeared. We hope, also, to bring the parties concerned into more frequent communication with regard to any alteration in the present position or prospects of their respective adventures; and, we need hardly add, that we shall be happy to fill up all our blanks, on receipt of the quotations at which business has actually been transacted, guaranteed by the name and address of our correspondent.